

EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment						Work Assignment Number 1-32				
						<input type="checkbox"/> Other <input type="checkbox"/> Amendment Number:				
Contract Number EP-C-15-022			Contract Period 09/01/2015 To 06/30/2017 Base Option Period Number 1			Title of Work Assignment/SF Site Name GS Class VI Rule Implem & Perm				
Contractor CADMUS GROUP, INC., THE					Specify Section and paragraph of Contract SOW 4.3					
Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval						Period of Performance From 07/01/2016 To 06/30/2017				
Comments: Performance on this WA shall not begin until July 1, 2016. Also, work other than just the work plan is authorized to begin on July 1, 2016.										
<input type="checkbox"/> Superfund Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
SFO <input type="checkbox"/> Note: To report additional accounting and appropriations date use EPA Form 1900-69A. (Max 2)										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:				LOE: 0				
09/01/2015 To 06/30/2017										
This Action:						3,999				
Total:						3,999				
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee		LOE:				
Cumulative Approved:				Cost/Fee		LOE:				
Work Assignment Manager Name MaryRose Bayer						Branch/Mail Code:				
_____ (Signature) (Date)						Phone Number: 202-564-1981				
						FAX Number:				
Project Officer Name Nancy Parrotta						Branch/Mail Code:				
_____ (Signature) (Date)						Phone Number: 202-564-5260				
						FAX Number:				
Other Agency Official Name						Branch/Mail Code:				
_____ (Signature) (Date)						Phone Number:				
						FAX Number:				
Contracting Official Name Tammy Adams						Branch/Mail Code:				
_____ (Signature) (Date)						Phone Number: 513-487-2030				
						FAX Number: 513-487-2545				

Work Assignment Form. (WebForms v1.0)

TAMMY
ADAMS

Digitally signed by TAMMY
ADAMS

DN: c=US, o=U.S. Government,
ou=USEPA, ou=Staff, cn=TAMMY
ADAMS, dnQualifier=0000018417
Date: 2016.06.23 09:14:52 -04'00'

PERFORMANCE WORK STATEMENT

EP-C-15-022

Work Assignment 1-32

July 1, 2016 to June 30, 2017

I. ADMINISTRATIVE:

A. Title: Geologic Sequestration: Class VI Rule Implementation and Permitting Support

B. Work Assignment Contracting Officer Representative (WACOR):	Alternate Work Assignment COR (WACOR):
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C. Quality Assurance:

Task(s) 1 through 5 in this work assignment require quality assurance (QA). Collection, use and analysis of data will be identical to the procedures described in the Supplemental Project Specific Quality Assurance Project Plan (SQAPP) completed under task(s) 0 of WA0-32, consistent with the Agency's Quality Assurance (QA) requirements, appending the Contract Quality Assurance Project Plan (QAPP). The project specific QA requirements must be addressed in the monthly progress reports as specified under Task 0, below.

D. Background:

Geologic Sequestration (GS) is the process of injecting Carbon Dioxide (CO₂) captured from an emission source (e.g., a power plant or industrial facility) into deep subsurface rock formations for long-term storage. It is part of a process known as "carbon capture and storage," or CCS. EPA's Underground Injection Control (UIC) Program regulations are designed to protect underground sources of drinking water from injection related activities. Endangerment can occur when well construction, operation, maintenance, conversion, plugging, abandonment, and other injection activities cause a fluid to enter an underground source of drinking water (USDW) or when the fluid is injected directly into a USDW. To prevent endangerment, EPA's UIC Program Class VI regulations establish "minimum requirements" for: permitting, siting, area of review evaluation, corrective action, well construction, operation, inspection, monitoring, recordkeeping, reporting, post-injection site care, plugging and abandonment, site closure and financial responsibility. EPA is currently

implementing the Class VI regulations nationally. The tasks under this work assignment support Class VI implementation, guidance development, technical permitting assistance, and fulfillment of the Agency's goal of protecting USDWs and supporting the deployment of CCS technologies.

II. OBJECTIVE:

The contractor shall support EPA in: finalizing guidance documents; conducting literature reviews and research related to GS and CCS issues; and supporting implementation through technical permitting assistance.

III. TASK DETAIL:

The contractor shall perform the following tasks:

Task 0: Work Plan and Monthly Progress Reports

The contractor shall develop a work plan that describes how each task will be carried out. The work plan shall include a schedule, staffing plan, level of effort (LOE), and cost estimate for each task, the contractor's key assumptions on which staffing plan and budget are based, and qualifications of proposed staff. If a subcontractor(s) is proposed and subcontractors are outside the local metropolitan area, the contractor shall include information on plans to manage work and contract costs.

In addition, the contractor shall prepare a statement indicating that this WA is a continuation of WA 0-32. The work plan shall explain that collection, use and analysis of data in this work assignment will be identical to the procedures described in the SQAPP completed under Task(s) 0 of WA 0-32. This task also includes monthly progress and financial reports. The monthly progress report shall indicate, in a separate QA section, whether significant QA issues have been identified and how they are being resolved. Monthly financial reports must include a table with the invoice LOE and costs broken out by the tasks in this WA. The contractor shall immediately notify the Contract Level Contracting Officer Representative (CL-COR) and Work Assignment Contracting Officer Representative (WACOR) if any changes to the tasks involving the collection and analysis of the data occur and prepare a new SQAPP supplementing the Contract QAPP accordingly. Work on these tasks cannot proceed until the contractor receives notification of the new SQAPP approval from the CL-COR via e-mail.

Task 1: Technical Guidance Finalization

EPA is in the process of finalizing a series of technical guidance documents to support Class VI implementation.

Subtask 1.1: Technical Guidance Revision Support

EPA is currently reviewing public comments on technical guidance documents developed and posted to EPA's website for comment under a previous contract and is deliberating on

technical issues covered in these documents. Comments received focus on technical issues, regulatory requirements, the rulemaking process and requests for additional clarity.

The contractor shall conduct research and technical analyses in support of responding to select public or technical/management review comments and revising the following documents in support of their finalization:

- The Final Class II-VI Transition Guidance;
- The Final Well Plugging, Post Injection Site Care and Site Closure Guidance;
- The Final Implementation Manual.

EPA anticipates technical analyses will focus on topics including: the risk “profile” or risks posed at Class II EOR projects; alternative Post Injection Site Care (PISC) timeframe demonstration criteria; standard operating procedures during permitting, injection and post-injection at Class VI projects.

For estimation purposes, the contractor shall assume supporting development of discrete sections of the guidance documents. Following receipt of written technical direction and public comments on a specific topic from the EPA WACOR (as indicated above), the contractor shall develop a revised guidance section on a specific topic.

For estimation purposes, the contractor shall assume development of eight revised guidance sections (each approximately 30 pages in length). The contractor shall perform a literature search and review of existing information to develop these revised guidance sections. A draft of each revised guidance section shall be delivered in an electronic form to the EPA WACOR no more than 20 business days after receipt of written technical direction from the EPA WACOR. Upon receipt of comments from the EPA WACOR, the contractor shall finalize and deliver a final revised guidance section via email within 15 business days.

Subtask 1.2: Injection Depth Waiver Guidance Public Comment Organization and Finalization Support

During the performance period for this work assignment, EPA anticipates posting for public comment the Draft Injection Depth Waiver Guidance (developed under a previous contract) on EPA’s website.

In support of guidance finalization, the contractor shall develop a simple system (e.g., excel spreadsheet or word table) to manage public comments received on the Draft Injection Depth Waiver Guidance. For estimation purposes, the contractor shall assume receipt of no more than 20 substantive public comments. (Note: the EPA WACOR will receive public comments internally and send comments to the contractor via email).

Following receipt of final public comments from the EPA WACOR, within fifteen business days, the contractor shall provide technical recommendations to the EPA WACOR regarding the best approach to address the comments, including, as directed, revisions to the guidance text or additional, brief paragraphs. Following conclusion of the EPA WACOR’s evaluation

of the contractor's recommended approach, the contractor shall maintain a record of the final approach to address each comment to facilitate formatting for finalization of the documents under Subtask 1.3.

Subtask 1.3: Technical Guidance Formatting

As a follow-on to work conducted under a previous contract and to facilitate technical guidance document finalization, the contractor shall copy edit, format and conduct 508 compliance formatting (in compliance with Section 508 of the Rehabilitation Act of 1973) on the following documents:

- The Final Well Plugging, Post Injection Site Care and Site Closure Guidance (88 pages), comment table and public comments;
- The Final Implementation Manual (150 pages);
- The Final Injection Depth Waiver Guidance (95 pages), comment table and public comments;
- The Final Class II-VI Transition Guidance (93 pages), comment table and public comments;
- A Revised Class VI Injection Well Construction Guidance (58 pages).

The contractor shall finalize the guidance and conduct 508 compliance formatting (in compliance with Section 508 of the Rehabilitation Act of 1973) within 12 business days of receipt of final documents from the EPA WACOR. For estimation purposes, the contractor should use the page numbers of the draft guidance documents listed above and assume that the associated comment tables and public comments documents will each be approximately 100 pages in length.

Task 2: GS and CCS Issue Paper Development Support

Many critical economic, scientific, and institutional issues arise during rule implementation that require analysis to support Agency deliberations, management briefings, and internal discussions. Because of the highly complex nature of GS and CCS, some issue papers may be required to ensure that the Agency has the information to implement the rule and coordinate with co-regulators in 2016/2017.

The background papers may address topics such as:

- Domestic enhanced recovery operations;
- The Class VI permit application review process;
- Geologic Sequestration injection and monitoring technology developments and innovations;
- Other To Be Determined.

The contractor shall develop approximately three issue papers in support of this task. Each issue paper shall be 10-20 pages in length. The contractor shall also perform a literature search and review of existing information to develop these issue papers. A draft of each issue

paper shall be delivered in an electronic form to the EPA WACOR no more than 20 business days after receipt of technical direction via email from the EPA WACOR. Upon receipt of comments from the EPA WACOR, the contractor shall finalize and deliver a final issue paper within 15 business days.

Task 3: Regional Permitting Support

As of September 7, 2011, EPA directly implements the Class VI rule nationally. Due to the technical complexity of Class VI GS well requirements, permit applicants and EPA Regions have turned to the EPA GS team (located in Washington, DC) for support in the permitting process. The contractor shall provide support to EPA in early discussions and data/information evaluations with prospective Class VI permit applicants.

Subtask 3.1: Permitting Support

The contractor shall support EPA in reviewing select pre-application information and/or parts of draft Class VI geologic sequestration permit applications (e.g., initial Area of Review (AoR) model; project plans; financial responsibility demonstrations; non-endangerment demonstrations; well construction schematics; etc.). EPA will provide the contractor with the draft permit application and/or information upon receipt from the (prospective) permit applicants/Regions seeking support. For estimation purposes, the contractor shall assume supporting EPA in review of five discrete technical areas/topics (see examples above).

Within 10 weeks of receipt of the draft permit application (or information) the contractor shall conclude the following:

- 1) Review of the draft permit application or information to ensure that the information submitted is complete, in accordance with the requirements of 40 CFR 144 and 146;
- 2) Identification of technical issues that may require additional attention and detail; and,
- 3) Development of a list of questions that require follow-up correspondence with the permit applicant or research on the part of the permit writer.

The contractor shall provide a draft summary report of their review including responses to items 1 through 3 above to the EPA WACOR for review and comment. Upon receipt of comments from the EPA WACOR, the contractor shall finalize each permit summary report within 10 business days. For purposes of estimation, the summaries will be approximately 10-30 pages in length.

Subtask 3.2: Technical Calls

The contractor shall anticipate participating in eight, two-hour conference calls with EPA and the prospective applicant. It is not anticipated that the outcome of these calls will change the scope of the contractor's work but will serve to communicate specific details and/or decisions to the prospective permit applicant to inform their understanding of the Class VI rule.

Task 4: Technical Permitting Support: Region 5

In 2014, EPA issued two final Class VI permits to Archer Daniels Midland (ADM), located in Decatur, IL (in Region 5). During the performance period of this WA, EPA anticipates evaluation of additional information to support authorization to inject at one of these wells (ADM's CCS#2). Due to the technical complexity of Class VI permitting and the Agency's commitment to safe and effective deployment of Carbon Capture and Storage technologies, it is incumbent upon the EPA that we make timely, technically sound decisions in response to permit applicants.

Subtask 4.1: AoR Reevaluations

As a follow-on to work conducted under a previous contract, the contractor shall provide technical support to EPA in reviewing permit application information on the geological conditions at potential geologic sequestration sites in Region 5 –particularly with respect to the Area of Review delineated using computational modeling (e.g., reviewing the model input and output files provided to the contractor by the EPA WACOR). The contractor shall conduct independent model simulations using STOMP (Subsurface Transport Over Multiple Phases) to inform decisions regarding the appropriateness of the permit applicant's model simulation(s) at the ADM project. Following model simulations, the contractor shall develop a report that is informed by the independent model simulations and that addresses the following questions:

- Are the sensitivity analyses a valid indicator of a conservative outcome?
- Are the submitted geological models valid representations of the geological conditions at the site when compared against the other permit application information provided to the contractor?
- Is the calibration valid? If yes, how was that conclusion reached? If not, what recommendations can be made to address this issue?
- Will the submitted modeled parameter values result in a conservative outcome? Do the independent modeling results conducted by the contractor coincide with those submitted by the applicant? How do the model simulations differ between the applicant's submittals and the contractor's simulations? Are the permit applicant's simulations similarly conservative in comparison to the contractor's simulations?
- Based on the results of the analysis and the responses to these questions, does the contractor recommend any revisions to the original model or running additional model simulations? If yes, what additional conditions should be considered?
- How does the reevaluation (post-construction) compare to the initially delineated Area of Review (referenced in the permit to construct)?

For estimation purposes, the contractor shall assume that the report generated will be 15-20 pages in length. Following receipt of the appropriate supporting documents from the EPA WACOR, the contractor shall conduct the modeling simulations and provide a draft report to

the EPA WACOR for review and comment within 10 weeks. Upon receipt of comments by the EPA WACOR, the contractor shall finalize the report within 10 business days.

Subtask 4.2: Class VI Data Evaluation in Support of Authorization to Inject

During the performance period of this WA, the Agency will receive additional data from well-logging, formation sampling and testing on the geologic characteristics of the project site for one of those wells (CCS2) at the ADM site. This data will require analysis by geologists, well engineers and computational modeling experts to support EPA decision-making related to authorizing injection at the Class VI wells.

To support the evaluation to authorize injection, the Contractor shall review logging, sampling and testing information. Upon receipt of technical direction and copies of the data (e.g., well logs, fluid sample analyses, as built well construction schematics), the Contractor shall review each data set and prepare a summary that:

- Assesses whether the information meets the requirements at 40 CFR 146.82(c) and 146.87;
- Identifies technical issues or questions for the permittee related to the information collected/submitted by the permittee; and
- Identifies any discrepancies between the predicted values (in the permit application/on which the draft permit was based) and the measured values resulting from logging, sampling and testing.

For estimation purposes, the Contractor shall, upon receipt of information from the EPA WACOR, review and develop a draft summary within 20 business days. Upon receipt of comments on the draft summary from the EPA WACOR, the contractor shall finalize the summary within ten business days.

Subtask 4.3: Project Check-In Calls (Region 5)

In support of ongoing permit application reviews, the contractor shall participate in biweekly conference calls of the Class VI permit review team. For estimation purposes, it is anticipated that these calls will be one hour in length and provide an opportunity for dialogue, question and answer and coordination among team members. It is not anticipated that the outcome of these calls will change the scope of contractor's work but will serve to clarify specific details and/or decisions regarding the permit application reviews.

Subtask 4.4: Draft Permit Decision Response to Comments Support

In support of ongoing Class VI permitting activities, the contractor shall provide support to organize, manage and respond to public comments received by the EPA during the major permit modification period (following authorization to inject but prior to injection) for the ADM Class VI project in Region 5.

For estimation purposes, the contractor shall anticipate:

- That EPA will receive approximately 150 substantive comments;
- Supporting comment coding, organization and categorization/logging of the comments in either Excel or a Word table format using predefined coding categories upon receipt from the EPA WACOR;
- Developing technical responses principally in the areas of Testing and Monitoring, Area of Review Delineation/Computational Modeling, and Financial Responsibility and thus requiring the expertise of geologists, well engineers, computational modelers, financial responsibility experts; and
- Coordinating development of final responsiveness summaries (one for each project) in Word.

The contractor shall develop draft responses to select technical comments within 15 business days of receipt of topic area tables and comments from the EPA WACOR.

The contractor shall compile and deliver a final responsiveness summary to the EPA WACOR 5 business days after receipt of final comment-response documents from the EPA WACOR.

Subtask 4.5: Permit Appeal Support

Final EPA UIC permitting actions are open to public appeal to the Environmental Appeals Board (EAB). In the event that an appeal is made on an EPA permitting decision, Region 5 and the UIC GS team will have approximately 20 days to develop a technical response and file it with the EAB.

In support of appeal response development and following receipt of specific topics from the EPA WACOR, the contractor shall develop four 3-5 page technical documents outlining specific permitting decisions. The contractor shall deliver a draft of each technical document to the EPA WACOR within 5 business days of receipt of technical direction/topic areas. Following receipt of comments from the EPA WACOR, the contractor shall finalize the document within 5 business days.

Task 5: Technical Permitting Support: Region 7

Due to the technical complexity of Class VI GS wells, the promulgation of the Class VI requirements, and the volume of information received or anticipated to be received by EPA (Region 7), EPA requires targeted support in evaluating permit application information and developing technical Class VI permit conditions for the Berexco, LLC project permit application.

Subtask 5.1: AoR Evaluation

As a follow-on to work conducted under a previous contract, the contractor shall provide technical support to EPA in reviewing permit application information on the geological conditions of the proposed geologic sequestration site in Wellington, KS (Region 7) – particularly with respect to the Area of Review delineated by the applicant using

computational modeling (e.g., reviewing the model input and output files provided to the contractor by the EPA WACOR). The contractor shall conduct independent model simulations using STOMP (Subsurface Transport Over Multiple Phases) to inform decisions regarding the appropriateness of the permit applicant's model simulation(s) at the Berexco project site. Following model simulations, the contractor shall develop a report that is informed by the independent model simulations and that addresses the following questions:

- Are the sensitivity analyses a valid indicator of a conservative outcome?
- Are the submitted geological models valid representations of the geological conditions at the site when compared against the other permit application information provided to the contractor?
- Is the calibration valid? If yes, how was that conclusion reached? If not, what recommendations can be made to address this issue?
- Will the submitted modeled parameter values result in a conservative outcome? Do the independent modeling results conducted by the contractor coincide with those submitted by the applicant? How do the model simulations differ between the applicant's submittals and the contractor's simulations? Are the permit applicant's simulations similarly conservative in comparison to the contractor's simulations?
- Based on the results of the analysis and the responses to these questions, does the contractor recommend any revisions to original model or running additional model simulations? If yes, what additional conditions should be considered?

For estimation purposes, the contractor shall assume that the report generated will be 15-20 pages in length. Following receipt of the appropriate supporting documents from the EPA WACOR, the contractor shall conduct the modeling simulations and provide a draft report to the EPA WACOR for review and comment within 10 weeks. Upon the receipt of comments by the EPA WACOR, the contractor shall finalize the report within 10 business days.

Subtask 5.2: Permit Application Review Support

In support of EPA's permitting efforts, the contractor shall provide support in reviewing select parts of one Class VI geologic sequestration permit application (e.g., the initial AoR delineation; project plans; financial responsibility demonstrations; alternative post-injection site care demonstrations; non-endangerment demonstrations; well construction schematics; etc.). EPA will provide the contractor with the draft permit applications and/or information upon receipt from the permit applicants/Regions seeking support.

Within 10 weeks of receipt of the draft permit application (or information) the contractor shall conclude the following:

- 1) Review of the draft permit application or information to ensure that the information submitted is complete, in accordance with the requirements of 40 CFR 144 and 146;
- 2) Identification of technical issues that may require additional attention and detail; and,
- 3) Development of a list of questions that require follow-up correspondence with the permit applicant or research on the part of the permit writer.

The contractor shall provide a draft summary report of their review including responses to items 1 through 3 above to the EPA WACOR for review and comment. Upon receipt of comments from the EPA WACOR, the contractor shall finalize each permit summary report within 10 business days. For purposes of estimation, the summaries will be approximately 10-30 pages in length.

Subtask 5.3: Draft Permit Decision Response to Comments Support

In support of ongoing Class VI permitting activities, the contractor shall provide support to organize, manage and respond to public comments received by the EPA on the Class VI Berexco, LLC permit in Region 7.

For estimation purposes, the contractor shall anticipate:

- That EPA will receive approximately 150 substantive comments;
- Supporting comment coding, organization and categorization/logging of the comments in either Excel or a Word table format using predefined coding categories upon receipt from the EPA WACOR;
- Developing technical responses principally in the areas of Testing and Monitoring, Area of Review Delineation/Computational Modeling, and Financial Responsibility and thus requiring the expertise of geologists, well engineers, computational modelers, financial responsibility experts; and
- Coordinating development of final responsiveness summaries (one for each project) in Word.

The contractor shall develop draft responses to select technical comments within 15 business days of receipt of topic area tables and comments from the EPA WACOR.

The contractor shall compile and deliver a final responsiveness summary to the EPA WACOR 5 business days after receipt of final comment-response documents from the EPA WACOR.

Subtask 5.4: Permit Appeal Support

Final EPA UIC permitting actions are open to public appeal to the Environmental Appeals Board (EAB). In the event that an appeal is made on an EPA permitting decision, Region 7 and the UIC GS team will have approximately 20 days to develop a technical response and file it with the EAB.

In support of appeal response development and following receipt of specific topics from the EPA WACOR, the contractor shall develop two 3-5 page technical documents outlining specific permitting decisions. The contractor shall deliver a draft of each technical document to the EPA WACOR within 5 business days of receipt of technical direction/topic areas. Following receipt of comments from the EPA WACOR, the contractor shall finalize the document within 5 business days.

Subtask 5.5: Project Check-In Calls (Region 7)

In support of ongoing permit application reviews, the contractor shall participate in weekly conference calls of the Class VI permit review team. For estimation purposes, it is anticipated that these calls will be one hour in length and provide an opportunity for dialogue, question and answer and coordination among team members. It is not anticipated that the outcome of these calls will change the scope of contractor's work but will serve to clarify specific details and/or decisions regarding the permit application reviews.

IV. SCHEDULE OF DELIVERABLES:

TASK No.	DELIVERABLE	DATE DUE TO EPA
Task 0: Workplan Submission		
	Workplan, budget, QAPP and QA supplemental	According to contract
	Monthly progress and financial reports	Monthly
Task 1: Technical Guidance Finalization		
	1.1: Draft revised guidance sections	Within 20 business days of receipt of written technical direction, topic areas and public comments from the EPA WACOR
	1.1: Final revised guidance sections	Within 15 business days of receipt of comments from the EPA WACOR
	1.2: Excel Spreadsheet/Word table and technical recommendations	Within 15 business days of receipt of final public comments from the EPA WACOR
	1.3: Draft and/or Final guidance, comment table(s) and public comment(s) in 508 compliant pdfs	Within 12 business days of receipt of final documents from the EPA WACOR
Task 2: GS and CCS Issue Paper Development Support		
	Draft issue paper(s)	20 business days after receipt of written technical direction from the EPA WACOR
	Final issue paper(s)	15 business days after receipt of comments from the EPA WACOR
Task 3: Regional Permitting Support		
	3.1 Draft permit summary report	Within 10 weeks of receipt of draft permit application/information from the EPA WACOR
	3.1 Final permit summary report	10 business days after receipt of comments from the EPA WACOR
Task 4: Technical Permitting Support: Region 5 Permits		
	4.1: Draft report of the AoR reevaluation	Within 10 weeks of receipt of information from the EPA WACOR
	4.1: Final report of the AoR reevaluation	Within 10 business days of comments from the EPA WACOR

	4.2: Draft summary report	Within 20 business days of receipt of information from the EPA WACOR
	4.2: Final report	Within 10 business days of receipt of comments from the EPA WACOR
	4.3: Check-in calls	Biweekly
	4.4: Draft response to select technical comments	Within 15 business days of receipt of topic area tables and comments from the EPA WACOR
	4.4: Final response to select technical comments	Within 5 business days of receipt of comments from the EPA WACOR
	4.5: Draft technical response	Within 5 business days of technical direction from the EPA WACOR
	4.5: Final technical response	Within 5 business days of receipt of comments from the EPA WACOR
Task 5: Technical Permitting Support: Region 7 Permit		
	5.1 Draft report of the AoR reevaluation	Within 10 weeks of receipt of information from the EPA WACOR
	5.1 Final report of the AoR reevaluation	Within 10 business days of comments from the EPA WACOR
	5.2: Draft summary report	Within 10 weeks of receipt of information from the EPA WACOR
	5.2: Final summary report	Within 10 business days of comments from the EPA WACOR
	5.3: Draft responses to select technical comments	Within 15 business days of receipt of topic area tables and comments from the EPA WACOR
	5.3: Final responsiveness summary	Within 5 business days of receipt of comments from the EPA WACOR
	5.4: Draft technical response	Within 5 business days of technical direction from the EPA WACOR
	5.4: Final technical response	Within 5 business days of receipt of comments from the EPA WACOR

	5.5: Check-in calls	Weekly
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V. MISCELLANEOUS

Software Application Files and Accessibility

Software Application files, if delivered to the Government, shall conform to the requirements relating to accessibility as detailed to the 1998 amendments to the Rehabilitation Act, particularly, but not limited to, § 1194.21 Software applications and operating systems and § 1194.22 Web-based intranet and internet information and applications. See: <http://www.section508.gov/>

Preferred text format:	MS Word, 8.0 or higher (Office 2003 or higher)
Preferred presentation format:	Power Point, Office 2003 or higher
Preferred graphics format:	Each graphic is an individual GIF file
Preferred portable format:	Adobe Acrobat, version 6.0

VI. TRAVEL

The contractor shall anticipate four trips in support of this WA over the duration of the performance period. The travel is anticipated to be to technical and scientific conferences or meetings focused on the topics of Carbon Capture and Storage, Drinking Water Protection, Area of Review delineation, Geologic Sequestration, geology/geophysics, and oil and gas industry practices. Travel will be directly related to the scope of this Work Assignment and support advancement of the work under Tasks 1 through 5 as well as the EPA's Mission to ensure protection of Underground Sources of Drinking Water, human health and the environment.

For estimation purposes, the Contractor shall anticipate four individual trips (one contractor employee) to any of the following cities: Pittsburgh, PA, Chicago, IL, Houston, TX or equivalent locations. It is anticipated that the duration of each trip will be between two and five days in length.

VII. MEETINGS, CONFERENCES, TRAINING EVENTS, AWARD CEREMONIES AND RECEPTIONS

All appropriate clearances and approvals required by Agency policy in support of any and all conference related activities and expenses, including support of meetings, conferences, training events, award ceremonies and receptions, including the form 5170 for all meetings costing more than \$20,000, shall be obtained by the EPA CL-COR as needed and provided to the Contracting Officer (CO). Work under conference related activities and expenses shall not occur until this approval is obtained and provided by the EPA CL-COR.

VIII. CONTRACTOR IDENTIFICATION

Contractor personnel shall always identify themselves as contractor employees by name and organization and physically display that information through an identification badge. Contractor personnel are prohibited from acting as the Agency's official representative. The contractor shall refer any questions relating to the interpretation of EPA policy, guidance, or regulation to the CO, CL-COR and/or WACOR.

IX. PRINTING

All copying and printing shall be accomplished within the limitations of the printing clause of the contract.

X. QUALITY ASSURANCE AND SURVEILLANCE PLAN (QASP)

The contract QASP is applicable to this WA.

EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment						Work Assignment Number 1-33				
						<input type="checkbox"/> Other <input type="checkbox"/> Amendment Number:				
Contract Number EP-C-15-022			Contract Period 09/01/2015 To 06/30/2017 Base Option Period Number 1			Title of Work Assignment/SF Site Name Climate Ready Water Utilities				
Contractor CADMUS GROUP, INC., THE					Specify Section and paragraph of Contract SOW 5.1, 5.22, 2.3					
Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval						Period of Performance From 07/01/2016 To 06/30/2017				
Comments:										
<input type="checkbox"/> Superfund Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
Note: To report additional accounting and appropriations data use EPA Form 1900-69A.										
SFO <input type="checkbox"/> (Max 2)										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:		LOE:						
09/01/2015 To 06/30/2017				0						
This Action:				5,800						
Total:				5,800						
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee		LOE:				
Cumulative Approved:				Cost/Fee		LOE:				
Work Assignment Manager Name Steve Fries <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 202-564-7089 FAX Number:				
Project Officer Name Nancy Parrotta <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 202-564-5260 FAX Number:				
Other Agency Official Name <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: FAX Number:				
Contracting Official Name Tammy Adams <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 513-487-2030 FAX Number: 513-487-2545				

PERFORMANCE WORK STATEMENT
Cadmus EP-C-15-022
Work Assignment No. 01-33

I. ADMINISTRATIVE:

A. Title: *Climate Ready Water Utilities Initiative Support: Tools Development, Technical Assistance, Training, Outreach, and Education*

B. Work Assignment Contract Officer Representative (WACOR):

Steve Fries
Office of Ground Water and Drinking
Water (OGWDW)
1200 Pennsylvania Avenue, NW (MC:
4608-T)
Washington, DC 20460
202-564-7089
fries.steve@epa.gov

Alternate WACOR:

Curt Baranowski
Office of Ground Water and Drinking
Water (OGWDW)
1200 Pennsylvania Avenue, NW (MC:
4608-T)
Washington, DC 20460
202-564-0636
baranowski.curt@epa.gov

LOE: 5800

C. Quality Assurance:

The tasks in this work assignment do not require environmental measurements. Consistent with the Agency's quality assurance (QA) requirements, the contractor does not need to supplement the Contract Level Quality Assurance Project Plan (QAPP) or to prepare a Project-Specific Quality Assurance project Plan (PQAPP). The contractor shall immediately notify the Project officer of any significant QA issues, and how they are being resolved addressed, in the monthly progress reports as specified below under Task 0. For deliverables utilizing geospatial datasets, quality assurance and metadata support should adhere to Agency approved Geospatial procedures and standards, see: <https://www.epa.gov/geospatial/geospatial-policies-and-standards>.

D. Background:

The EPA's *2008 National Water Program Strategy: Response to Climate Change* identified the need to provide drinking water and wastewater utilities with easy-to-use resources to assess the risk associated with climate change and to identify potential adaptation strategies. The U.S. Environmental Protection Agency (EPA or Agency) has established its Climate Ready Water Utilities (CRWU) initiative to enable the water sector, which includes drinking water, wastewater, and storm water utilities, to develop and implement long-range plans that account for climate change impacts.

The program recognizes that any comprehensive approach to climate change must include both adaptation and mitigation; it also seeks to engage a broad range of water sector stakeholders. In coordination with water sector partners and stakeholders, EPA is developing a holistic approach under which climate change can be addressed at the utility level.

II. OBJECTIVE:

The contractor shall support the priorities and requirements of the Water Security Division (WSD) as related to the CRWU initiative activities. The work assignment (WA) supports EPA's efforts to examine climate-related activities for the Nation's water sector infrastructure. Water infrastructure is subject to threats from various entities, including those related to climate change. Climate change impacts will impose a daunting challenge to the water sector's ability to fulfill its public health and environmental mission. Extreme weather events, sea-level rise, temperature changes, and shifting precipitation and runoff patterns, all have significant implications for sustainability of the Nation's water sector. Regardless of actions to reduce future levels of greenhouse gases, the water sector will need to develop effective adaptation strategies to address climate change impacts. At the same time, the water sector can and should contribute to mitigation efforts through increased efficiencies.

This work assignment supports the mission of WSD as described in the Water Security Strategy framework, which relates resources, activities, outputs, audience, short- and long-term outcomes to the WSD pillars of Prevention, Detection, Response, and Recovery. Additionally, this work assignment contributes to the commitments made in EPA's *Strategic Plan: 2011 to 2015* and EPA's *Homeland Security Strategy (2004)*. Under EPA's *Strategic Plan*, reference is made to Goal 2 (Clean and Safe Water), Objective 2.1 (Protecting Human Health), Sub-objective 2.1.1 (Water Safe to Drink), and to the Cross-Goal on homeland security. Under EPA's *Homeland Security Strategy*, reference is made to Objective 1 (Critical Infrastructure Protection).

The intended audience for this project is drinking water, wastewater, and stormwater utilities, as well as other parties that support these utilities as they begin to understand and consider climate challenges to their systems, missions, and operations (e.g., water sector associations; interdependent sectors and actors, federal agencies, and local, state, and federal governments).

Partners in CRWU-related coordination efforts include but are not limited to the following:

- Drinking Water and Wastewater Associations and Stakeholders
- EPA program offices such as Office of Air and Radiation, Office of Research and Development, and various other components of Office of Water (e.g., Office of Wastewater Management, Drinking Water Protection Division, and Office of Wetlands, Oceans, and Watersheds)
- Water Utility Climate Alliance
- Federal Agencies
- EPA Regional offices

III. TASK DETAIL:

The contractor shall perform the following tasks:

Task 0 - Work Plan Submission:

The contractor shall prepare a detailed work plan and budget for the accomplishment of the indicated tasks in accordance with the clause Work Assignments (EPAAR 1552.211-74). The work plan shall include a description of (a) proposed staff, (b) the number of hours and labor classifications proposed for each task, broken down to task level, to include both prime contractor and subcontractor labor, and (c) a list of deliverables, with due dates and schedule for deliverables.

In addition, the work plan shall specify that a Supplemental Project Specific Quality Assurance Project Plan (SQAPP) appending the Contract Level Quality Assurance Project Plan (QAPP) or a Project-Specific Quality Assurance project Plan (PQAPP) is not required.

This task also includes monthly progress and financial reports which are to be submitted pursuant to Attachment 2 of the contract. Monthly financial reports must include a table with the invoice level of effort (LOE) and costs broken out by the tasks in this WA. The monthly progress report shall indicate, in a separate QA section, whether significant QA issues have been identified and how they are being resolved. The contractor shall immediately notify the Project Officer and EPA WA Contracting Officer's Representative (COR) if any changes to the collection and analysis of the data is needed and prepare a PQAPP accordingly.

The contractor shall immediately alert the EPA WACOR to any anticipated event under the work assignment which may result in incurring an estimated \$20,000 or more cost, funded by EPA, specific to that event (e.g., meeting or training). Those costs would include travel of both prime and consultant personnel, planning and facilitation costs, audio/visual, and rental of venue costs. The EPA WACOR will prepare approval internal paperwork for the event and will advise the contractor when appropriate signatures have been obtained. At that point, effort can proceed for the event. If the event is being sponsored by another EPA organization, the organization providing the planning is responsible for the approval.

Task 1 - Development of web-based, Climate Ready Water Utilities (CRWU) *Adaptation Strategies Guide* (ASG): The contractor shall continue progress made during the base period (under Task 1A of WA 00-33) in the transition the current version of the ASG (linked from the CRWU homepage: <http://www.epa.gov/crwu>) into a web-based application (WebASG).

The WebASG will be accessible on the EPA Website from multiple device types (e.g., PCs and tablets), operating systems (e.g., Mac OS, Microsoft Windows, iOS, Android) and browsers supported on these platforms (e.g., Internet Explorer, Firefox, Chrome, Safari). Browser version compatibility of final product will be part of requirements and based on current browser use statistics and known stakeholder and EPA preferences. The web application will be publicly accessible with no need to provide or manage usernames and passwords. Developers will use responsive design to ensure that the dimensions of the screen render appropriately given the user's device.

The WebASG will provide tailored climate and adaptation information based on user inputs. This information is already developed and in the existing PDF version of the ASG; current content will not be updated in the WebASG. The proposed flow of the tool is as follows:

1. The user provides the following information:

- a. Utility Type
 - b. Region(s) of interest
 - c. Specific impact(s) of interest
 - d. Sustainability topic(s) of interest
2. User reviews Regional, Strategy, and Sustainability Briefs based on selections
3. User downloads any of the corresponding PDF briefs
4. User completes an adaptation planning worksheet

Continuing the development process begun under WA 00-33, the contractor shall pursue the following process:

- **Discovery:** confirm Web and technical specifications in draft documentation
- **Information Architecture:** provide proposed site map and wireframes
- **Design:** provide a static design based on the approved information architecture
- **Initial Build:** build templates in coordination with EPA
- **Application Content:** build out the site map and content on each page
- **Revision:** make changes based on EPA's review and user acceptance testing
- **Deploy:** update content and work with EPA to finalize website

To the extent technically feasible, this tool will resemble other online CRWU products such as the CRWU Extreme Events Workshop Planner (EEWP: <https://workshopplanner.epa.gov/>) and Climate Resilience Evaluation and Awareness Tool (CREAT: <https://creat.epa.gov/>).

Deliverable: The development and completion of draft and final versions of the WebASG along with supporting documents for each version. See deliverable schedule below for details.

Task 2 – Support Direct Technical Assistance Exercise with Mid-Atlantic Utility using CREAT: In collaboration with EPA, the contractor shall provide climate change risk assessment technical assistance to one (1) water sector utility or to one (1) community served by multiple utilities. The contractor shall use CREAT 3.0, a risk assessment tool, to help participants understand how to use the tool and develop their risk assessment. EPA and the contractor will work together to identify the appropriate water sector utility that will receive this assistance. The exercise process requires the revision of agendas and presentation material templates used in multiple previous exercises and provision of logistical support for scheduling events, including an in-person visit to the utility/community.

For planning purposes, the contractor should assume three (3) webinars with participants, as well as travel for two (2) contractors for one (1) two-day onsite visit.

Deliverable: The coordination, outreach, and the provision of technical assistance for the completion of a water sector utility climate change risk assessment using CREAT. Documentation of the exercise with compiled notes from all meetings and a summary report developed in collaboration with the participating utility/community.

Task 3 - Support Direct Technical Assistance Exercises with Utilities Revisiting their use of CREAT: In collaboration with EPA, the contractor shall provide climate change risk assessment technical assistance to up to five (5) water sector utilities or communities that have

previously participated in a CREAT exercise using Version 2.0. The contractor shall use CREAT 3.0, a risk assessment tool, to help participants understand how to use the tool and develop their risk assessment. EPA and the contractor will work together to identify the appropriate water sector utility that will receive this assistance. The exercise process requires the revision of agendas and presentation material templates used in multiple previous exercises and provision of logistical support for scheduling events, including an in-person visit to the utility/community.

For planning purposes, the contractor should assume the following to each exercise: three (3) webinars with participants, as well as travel for two (2) contractors for one (1) two-day onsite visit.

Deliverable: The coordination, outreach, and the provision of technical assistance for the completion of each water sector utility climate change risk assessment using CREAT. Documentation of each exercise with compiled notes from all meetings and a summary report developed in collaboration with each participating utility/community.

Task 4 – Maintain the CRWU Adaptation Case Studies Map: The contractor shall expand and improve the current map by adding new case studies and implementing improvements recommended by utility users. Approximately twenty-five (25) new case studies are anticipated during period of performance depending on number contributed by utilities that have completed adaptation planning. The current map is linked from the CRWU homepage: <http://www.epa.gov/crwu>.

Deliverable: Review and deployment of new case studies as part of up to four (quarterly) updates to the data on the map. One update to map application focused on improving the accessibility of data and responding to user feedback.

Task 5 – Update WebASG to Version 2.0: The contractor shall revisit the design and specifications of the WebASG developed and deployed under Task 1 of this WA. The goals for Version 2 of the WebASG should include, but not be limited to, the following:

- Update the case studies in the WebASG to include recent developments in the current examples and potentially add case studies from the CRWU Adaptation Case Studies Map (maintained under Task 4 of this WA)
- Link the WebASG to the CRWU Adaptation Case Studies Map by utilizing similarities in the organization of the datasets in both products (e.g., case studies organized by challenges and utility types)
- Incorporate, where appropriate, EPA products (e.g., PDFs, videos) already posted on EPA's website and YouTube site
- Address feedback from critical stakeholders and users to improve functionality and usability of WebASG

Deliverable: The development and completion of draft and final versions of the updated WebASG along with supporting documents. See deliverable schedule below for details.

Task 6 - National CRWU and CREAT Training Workshops: To support water sector utilities and partners in becoming more climate ready, the contractor shall provide four (4) climate ready workshops across the U.S. to train utilities, States, associations, and environmental trainers on the use and application of CREAT and other CRWU initiative tools. In coordination with EPA Headquarters and Regional offices, training workshops will be developed to focus on specific regional climate threats and employ subject matter experts and local case studies as possible.

At the training, approximately thirty (30) utility participants will each build their own risk assessment file using CREAT. For planning purposes, assume travel for three (3) contractors and two (2) subject matter experts for each workshop. Also, assume the need to acquire hotel or training space for each workshop, which will accommodate up to forty five (45) people. Contractor shall, to the extent possible, use EEWP to organize workshops and provide facilitation support for event.

Deliverable: The coordination, outreach, and the provision of materials for each training event. Documentation of each event, including presentation materials, attendance and a summary report.

Task 7 - CRWU Initiative Outreach, Promotion, and Tracking (Metrics): To continue to support the CRWU initiative, the contractor shall, upon receipt of Technical Direction:

- Provide document assistance and scientific / technical support to facilitate and enhance EPA's CRWU efforts. Specific activities will be assigned through written technical direction by the EPA WACOR in response to the EPA's support needs.
- Support generic outreach and metrics tracking. While outreach is a part of every task, some specific actions such as product releases, publications, conference participation and briefings may necessitate updates to metrics.
- Revisit Bond Rating Report and Stakeholder process that resulted in EPA's CRWU publication: https://www.epa.gov/sites/production/files/2016-06/documents/risks_and_resilience_synthesis_document_final_09_09_14.pdf.
 - a. Specific activities under this task would include reconvening the working group to discuss sector changes in perception and applicability of climate readiness in credit ratings and bond rates.
 - b. For planning purposes, assume three (3) webinars and one (1) in-person working group meeting with travel for two (2) contractors and two (2) subject matter experts from the participating sectors. Also, assume the need to acquire hotel meeting space, which will accommodate up to thirty (30) people.
 - c. The contractor shall provide facilitation support and a report on the findings of the working group meetings.
- Support EPA's CRWU in coordination with our international counterparts in Australia, UK, Africa, Europe and Canada.
- Maintain map applications on EPA's Geoplatform, including the CREAT Projected Scenarios Map developed under WA 00-33, in response to visitor feedback and impacts of software and platform updates.

- Support EPA's ability to invite and provide travel support to up to five (5) previous CREAT assessment participants as utility SMEs to advocate / speak on behalf of CRWU & CREAT at conferences.

Deliverable: See deliverable schedule below for details.

IV. SCHEDULE OF DELIVERABLES:

Specific deliverables, by Task, are detailed in the table below. All work will be determined by technical direction.

This work requires experience in the development and manipulation of basic geospatial datasets, map layer, geodatabases and ESRI map application templates. It is necessary for the contractor to have familiarity with EPA's Geoplatform, or a similar platform at another federal agency or department.

TASK No.	DELIVERABLE	DATE DUE TO EPA
Task 0 - Workplan Submission		
Workplan and budget		According to contract.
Monthly progress reports		Monthly
Task 1 - Development of web-based, CRWU Adaptation Strategies Guide		
WebASG Information Architecture		August 1, 2016
WebASG Design		September 1, 2016
Draft WebASG for EPA review.		October 10, 2016
Revised WebASG documentation		December 1, 2016
Final WebASG ready for posting to EPA’s website		
Task 2 - Support Direct Technical Assistance Exercise with Mid-Atlantic Utility using CREAT		
Documentation (summary notes) from the exercise		January 15, 2017
Summary report from exercise		
Task 3 - Support Direct Technical Assistance Exercises with Utilities Revisiting their use of CREAT		
Documentation (summary notes) from each exercise		May 31, 2017

Summary report from each exercise	
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Task 4 – Maintain the CRWU Adaptation Case Studies Map	
Quarterly updates to case studies	To be determined by technical direction; an exact date cannot be determined prior to receiving stakeholder or management feedback
Update to application	
Task 5 – Update WebASG to Version 2.0	
Revised WebASG documentation for Version 2 (v2)	To be determined by technical direction; an exact date cannot be determined prior to receiving stakeholder or management feedback
Draft WebASG v2 ready for posting to EPA’s website	
Revised WebASG v2 documentation	
Final WebASG v2 ready for posting to EPA’s website	
Task 6 - National CRWU and CREAT Training Workshops	
Presentation materials from each event	May 31, 2017
Summary report from each event	
Task 7 - CRWU Initiative Outreach, Promotion, and Tracking (Metrics)	
Document assistance and scientific / technical support for no more than three (3) technical documents and two (2) CRWU presentations	To be determined by technical direction; an exact date cannot be determined prior to receiving stakeholder or management feedback.
Revisit Financial Sector Report and Stakeholder Discussion	
Support international coordination (attend up to 6 webinars)	
Support for utility SMEs (up to 5 trips)	
Quarterly outreach metrics updates	September 30, 2016 December 31, 2016
Updates to CRWU map products (up to one per quarter)	March 31, 2017 June 30, 2017

V. MISCELLANEOUS:

Software Application Files and Accessibility:

Software application files, if delivered to the Government, shall conform to the requirements relating to accessibility as detailed to the 1998 amendments to the Rehabilitation Act, particularly, but not limited to, § 1194.21 Software applications and operating systems and § 1194.22 Web-based intranet and internet information and applications. See:

<http://www.section508.gov/>

Regarding FITARA, online publications of maps will leverage EPA's GeoPlatform technical architecture, hardware and software, to the fullest extent possible for public search and discovery. Quality assurance and metadata support should adhere to Agency approved Geospatial procedures and standards, see: <https://www.epa.gov/geospatial/geospatial-policies-and-standards>. All geospatial metadata will as required by OMB and be published in EPA's Environmental Data Gateway which serves Data.gov, see: <https://edg.epa.gov/metadata/catalog/main/home.page>

Preferred text format:	MS Word 8.0 or higher (Office 2007 or higher)
Preferred presentation format:	Power Point, Office 2007 or higher
Preferred graphics format:	Each graphic is an individual GIF file
Preferred portable format:	Adobe Acrobat, version 6.0
Preferred technology:	ESRI ArcGIS Desktop 10.4 or higher

The EPA WACOR shall identify which of delivered products will require 508 compliance.

VI. QUALITY ASSURANCE SURVEILLANCE PLAN:

All task(s) identified in the performance work statement above are subject to review and approval by the EPA WACOR based on the general guidelines of the contract quality assurance surveillance plan regarding: Programmatic, cost control, timeliness/deliverables, and document development standards.

EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment						Work Assignment Number 1-34				
						<input type="checkbox"/> Other <input type="checkbox"/> Amendment Number:				
Contract Number EP-C-15-022			Contract Period 09/01/2015 To 06/30/2017 Base Option Period Number 1			Title of Work Assignment/SF Site Name Decon Strategy				
Contractor CADMUS GROUP, INC., THE					Specify Section and paragraph of Contract SOW 2.3.2; 2.4.2, 2.4.6, 3.4.6, 5.1, 5.2, 6.1.3, 6.1.6					
Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval						Period of Performance From 07/20/2016 To 06/30/2017				
Comments: The contractor is authorized to start work immediately on this WA.										
<input type="checkbox"/> Superfund Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
SFO <input type="checkbox"/> (Max 2) Note: To report additional accounting and appropriations data use EPA Form 1900-69A.										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:		LOE:						
09/01/2015 To 06/30/2017				0						
This Action:				2,405						
Total:				2,405						
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee		LOE:				
Cumulative Approved:				Cost/Fee		LOE:				
Work Assignment Manager Name Marissa Lynch <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 202-564-2761 FAX Number:				
Project Officer Name Nancy Parrotta <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 202-564-5260 FAX Number:				
Other Agency Official Name <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: FAX Number:				
Contracting Official Name Tammy Adams <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 513-487-2030 FAX Number: 513-487-2545				

PERFORMANCE WORK STATEMENT
Cadmus EP-C-15-022
Work Assignment No. 1-34

Title: Decontamination Products to Enhance Water Sector Preparedness for All Hazards

**Work Assignment Contracting Officer
Representative (WACOR):**

Marissa Lynch
Office of Ground Water and Drinking
Water (OGWDW)
1200 Pennsylvania Avenue, NW
(MC: 4608T)
Washington, DC 20460
202-564-2761
lynch.marissa@epa.gov

Alternate WACOR:

George Gardenier
Office of Ground Water and Drinking
Water (OGWDW)
1200 Pennsylvania Avenue, NW
(MC: 4608T)
Washington, DC 20460
202-564-3333
gardenier.george@epa.gov

LOE: 2405 Hours

Quality Assurance:

The tasks in this work assignment do not require environmental measurements. Consistent with the Agency's quality assurance (QA) requirements, the contractor does not need to supplement the Contract Level Quality Assurance Project Plan (QAPP) or to prepare a Project-Specific Quality Assurance Project Plan (PQAPP).

Purpose:

Contractor support is required to provide technical and administrative support to develop and finalize various decontamination tools and resources to help the water sector enhance preparedness for contamination incidents from all hazards in drinking and wastewater. The purpose of this work assignment is for the contractor to:

1. Develop a decontamination guidance for decision-makers in preparing for decontamination activities once an "all hazards" contamination event is confirmed in drinking and wastewater systems. This guidance will be designed as a web-based tool for the Water Utilities to develop a Decontamination Preparedness and Assessment Strategy. This tool will consist of a series of templates for Water Utilities to populate and develop their own strategy.
2. Develop and design a web-based user interface for the Decontamination Tabletop Exercise (TTX) Trainer's Toolkit, and conduct two pilot TTX with drinking and waste water utilities to test the toolkit.
3. Facilitate, coordinate and help develop a workgroup among Environmental Protection Agency (EPA), Water Sector, partners and stakeholders to assist in coordinating activities on decontamination efforts, including following up on the progress of recommendations and decontamination activities listed in the 2008 *Critical*

Infrastructure Partnership Advisory Council (CIPAC) Water Sector Decontamination Working Group Recommendation and Proposed Strategic Plan.

4. Provide programmatic support necessary to keep up to date the decontamination website and other outreach and communication activities.

Background:

The mission of the United States Environmental Protection Agency's Water Security Division (WSD) is to provide support to drinking water and wastewater systems to improve the security and resilience of our nation's water infrastructure. WSD has developed a variety of programs, training and resources to support Water Sector emergency preparedness in support of the Homeland Security Presidential Directives 7 (HSPD-7) and 10 (HSPD-10). Under the HSPD-7, federal departments and agencies have to identify and prioritize United States critical infrastructure and the key resources and to protect them from terrorist attacks. In addition, under HSPD-10, EPA is charged with developing strategies, guidelines, and plans for decontamination. Drinking water and wastewater systems can face major challenges when confronting a contamination incident—whether accidental or intentional, natural or man-made. The challenges include not only isolating and treating contaminated water, but also decontaminating the storage, treatment, and distribution infrastructure for recovery and return to service.

To address Water Sector decontamination issues and challenges, EPA's Water Security Division worked closely with its partners and stakeholders in 2007, to identify the Sector's needs and challenges for information, tools, and resources enabling the timely recovery and "return to service" of utility operations from "all hazards" contamination incidents. In October 2008, EPA and its partners prepared a strategy report, "*CIPAC Water Sector Decontamination Working Group Recommendation and Proposed Strategic Plan, Water Sector Decontamination Priorities.*" The strategy provided recommendations on the priority issues and concerns as they relate to decontamination for the Water Sector. To date, a significant amount of work has been undertaken to further support decontamination research and policy needs and to communicate these efforts to Water Sector stakeholders. Of the 35 recommendations listed in the 2008 report, 23 are in progress and 3 have been identified as completed.

WSD has worked with stakeholders to develop a suite of products including tools and resources to help address emergency response and decontamination efforts. These tools and resources will benefit the following water sector customers, partners and stakeholders: drinking water and wastewater utilities, emergency responders, other EPA programs and offices such as the Office of Wastewater Management (OWM), Office of Land and Emergency Management's (OLEM) Chemical, Biological, Radiological and Nuclear Consequence Management Advisory Division (CBRN CMAD), Environmental Response Team (ERT), and On-Scene Coordinators (OSCs). Additional partners include the National Homeland Security Research Center (NHSRC), Office of Homeland Security (OHS), Office of Recovery and Resource Conservation, and Office of Chemical Safety and Pollution Prevention (OCSPP), Critical Infrastructure Partnership (CIP) partners (such as other Federal agencies, Regions, states, and local governments), and trade

associations (such as American Water Works Association (AWWA), Association of State Drinking Water Administrators (ASDWA) and Water Environment Federation (WEF).

Scope of Work:

All direction under this work assignment will be provided as written technical direction from the WACOR or alternate WACOR. If provided first as verbal technical direction to the contractor, it will be confirmed in writing within 5 calendar days with a copy to the Contract-Level Contracting Officer's Representative (CL-COR) and the Contracting Officer (CO), and is subject to the limitations of the technical direction contract clause. Each initial deliverable shall be provided to the EPA WACOR and EPA CL-COR in draft form for review and comment. The contractor shall incorporate WACOR review comments into revisions of the drafts. All drafts and final reports shall be approved by the WACOR.

Under this Option Period work assignment, the WACOR will provide the contractor electronic copies of the draft tools and resources for the contractor to perform the detailed tasks below.

Task Detail:

Task 0 – Work Plan Submission, Progress Evaluations and Monthly Reports

The contractor shall prepare a detailed work plan and budget for the accomplishment of the indicated tasks in accordance with the clause Work Assignments (EPAAR 1552.211-74). The work plan shall include a description of: (a) proposed staff; (b) the number of hours and labor classifications proposed for each task, broken down to task level, to include both prime contractor and subcontractor labor; and (c) a list of deliverables, with due dates and a schedule for deliverables.

In addition, the work plan shall include the requirement that all electronic and information technology (EIT) and all EIT deliverables be Section 508 compliant in accordance with the policies referenced at <http://www.epa.gov/accessibility>. If a subcontractor or subcontractor or subcontractors are proposed and the subcontractor(s) are outside the metropolitan DC area, the contractor shall include information on plans to manage work and contract costs.

The work plan shall also specify that a project-specific PQAPP supplement to the Quality Management Plan (QMP) is not required.

This task also includes monthly progress and financial reports which are to be submitted pursuant to Attachment 2 of the contract. Monthly financial reports must include a table with the invoice LOE and costs' broken out by the tasks in this WA. The work plan shall also provide an analysis of the existing and projected constraints and the feasibility of accomplishing the project's purpose. The monthly progress report shall indicate, in a separate

QA section, whether significant QA issues have been identified and if so, how they are being resolved.

The tasks under this work assignment do not require the acquisition of “off-site” facilities for conferences and meetings as defined in the IPN 12-05 and the events associated with this work assignment are not covered by EPA Order 1900.3 and do not require EPA Form 5170.

Task 1: Decontamination Preparedness and Assessment Strategy for Water Utilities

This tool addresses two recommendations of the 2008 CIPAC Strategy Report: recommendation 4-1 (“*identified the need to develop a robust decontamination framework for water utilities*”), and the recommendation 11-1 (“*identified the need for water utilities to understand the progression of roles and responsibilities as it relates to the Incident Command System (ICS)*”). The Decontamination Strategy Guidance will leverage the draft content of the previously develop tool Decontamination Preparedness and Assessment Tool (DPAT) to describe a general framework for decision-makers in getting prepare in a decontamination event required for remediation and cleanup from an “all hazards” contamination in drinking and wastewater systems. This tool will provide a summary of key information that will help utilities prepare for the characterization, decontamination and clearance phases from a Chemical, Biological and Radiological (CBR) incident. It will also provide information on the progression of roles and responsibilities and authorities for the utilities. The guidance will be developed in a web-based format and will include the necessary steps for drinking and wastewater utilities to generate a utility-specific remediation and cleanup strategy document. A series of worksheets (i.e. sampling analysis plan) will be included for the user to populate. The final product of the web-based guidance will be a customized final Decontamination Strategy indicating the necessary processes for water utilities to follow in preparation for remediation and clearance after a contamination event.

The contractor shall finalize development of the guidance and templates, in accordance with technical direction. Using the draft DPAT (in Microsoft Word format) provided by the WACOR, the contractor shall verify and update the information for accuracy. The guidance should include the following sections:

- 1) *Authorities*: Statutes, regulations, and authorities relevant under various decontamination scenarios.
- 2) *Roles and Responsibilities*: Introduction of the ICS organizational chart, and related roles and responsibilities as well as a template for the utility to identify and build their own ICS.
- 3) *Remediation and Cleanup Process Overview*: Flowchart with the high-level overview of the recommended process for remediation and cleanup of a water utility contaminated with CBR contaminants. The module will also provide a brief summary of the three remediation and cleanup phases: characterization, decontamination, and clearance.
 - i) *Remediation and Cleanup Worksheet Templates*: The web-based tool will be designed to guide the user to enter information to populate each remediation and

cleanup worksheets. Each worksheet will include the necessary steps to be populated and customized with the information, including a descriptive list of resources that can be used during the specific remediation and cleanup process available for the user to select for inclusion in their strategy document. The remediation and cleanup worksheets are:

- (1) *Characterization Phase*: Flowchart describing the characterization process, followed by more detailed information on the steps of the process including the responsible parties involved in implementing each step. The worksheet shall be developed for the utilities to identify the laboratories that could support emergency sampling and analysis for a wide range of contaminants, and identify mechanisms to access those labs, for example the Water Laboratory Alliance (WLA). Also, the worksheet shall identify resources with technical data (e.g., contaminant properties, fate and transport, analytical methods, treatability, etc.) for the utility to reference to during a remedial action.
- (2) *Decontamination Phase*: Flowchart describing the decontamination process, followed by more detailed information on the steps of the process including the responsible parties involved in implementing each step. The worksheet shall be designed to include the criteria and resources necessary for decontamination verification under various contamination scenarios. It should also include the regulatory authorities for local, State, tribal, or Federal agencies during the response/recovery phases.
- (3) *Clearance Phase*: Flowchart describing the clearance process, followed by more detailed information on the steps of the process including the responsible parties involved in implementing each step first. The worksheet shall be designed to include the criteria and resources necessary for clearance verification such as conducting final environmental sampling under various contamination scenarios. It should also include the regulatory authorities for local, State, tribal, or Federal agencies during the cleanup phase.
- 4) *Public Communication Plan*: The worksheet shall be designed to include the risk communication principles such as: identifying regulatory organizations, authorities, and guidance documents; identify stakeholders and other interested parties; identify the chain of command including the individuals to liaison with the media, gather information, and translate messages into lay language.
- 5) *Resources*: Summary of resources in support of remediation and clearance of CBR contamination in drinking water. Each resource shall indicate which phase(s) the resource is intended to support, and describe how that resource could be used to support drinking water systems remediation.
- 6) *Appendices*: Risk Communication Guide, Potential Treatment Methods by CBR agents, Waste Management Information, and References.

For each phase (characterization, decontamination, and clearance) the contractor shall develop flowcharts (or decision flow schemes) specific to each process. The contractor shall

also develop the templates for the worksheets, each including a detailed guide to help the user populate each process to develop the strategy document. All flowcharts shall be clickable to allow the users to automatically be directed to the specific section being referred to and to additional resources as needed. After review by the WACOR, the contractor shall finalize the web-based tool. The web-based templates shall be developed using a programming language and computing platform that will maximize compatibilities with browsers (e.g. Internet Explorer) and operating systems (e.g. Windows) and internet access (e.g. high speed). The contractor shall provide the WACOR with a draft version (in Microsoft Word or PDF format) for internal and external review. The WACOR will provide the comments for the contractor to address them. After all comments are addressed, the contractor shall provide the WACOR with a mockup of the web-based guidance for internal and external review. The WACOR will provide comments and after programming, the contractor shall provide the WACOR with final web-based strategy guidance for test and final review.

The contractor shall provide the WACOR with a final document (508 compliant) in Microsoft Word and PDF format, as well as the flowcharts in Power Point format.

Task 2: Decontamination Tabletop Exercise (TTX) Trainer's Toolkit

In 2014 and 2015, WSD conducted 5 successful Decontamination Tabletop Exercises (TTXs) for Drinking Water and Wastewater Systems across the country. In order to expand the reach of Decontamination Tabletop exercise effort, EPA is developing a Decontamination ties to Tabletop Exercise Trainer's Toolkit, which will provide water utilities and other water sector stakeholders with the training, resources and documentation that will be needed for them to plan and conduct their own decontamination tabletop exercises.

The contractor shall develop a web-based user interface of the Decontamination Tabletop Exercise Toolkit, in accordance with technical direction. Using the previously developed content for the tool (in Microsoft Word) provided by the WACOR, the contractor shall develop a web-based user tool that shall provide users with the processes, training materials and resources necessary to plan and conduct their own decontamination tabletop exercises. The web-based user interface shall be developed using a programming language and computing platform that will maximize compatibilities with browsers (e.g. Internet Explorer) and operating systems (e.g. Windows) and internet access (e.g. high speed). The contractor shall provide the WACOR with a mockup of the toolkit for internal and external review. The WACOR will provide comments and after programming, the contractor shall provide the WACOR with final web-based tool for test and final review. After review by the WACOR, the contractor shall finalize the web-based tool.

After finalization of the tool, the contractor shall help the WACOR with planning, coordinating and conducting two (2) pilot projects with one (1) drinking water utility, and

one (1) waste water utility. The contractor shall assist the EPA WACOR in identifying the 2 utilities to serve as a test case to conduct a test run of the TTX toolkit. After the pilots are completed, the contractor shall summarize the lessons learned and shall make any necessary revisions to the Toolkit and the materials included.

Task 3: Decontamination Preparedness and Assessment Workgroup

This task is to facilitate meetings, conference calls and webcasts with the Water Sector Utilities, Organizations, and Federal Agencies identified in the 2008 Decontamination Strategy to determine a roadmap that focuses on addressing the needs of the utilities. This task will include developing a workgroup that meets occasionally to discuss action items for Decontamination for the water sector, and conducting a face-to-face meeting to review the progress of recommendations and decontamination activities included in the 2008 CIPAC's report *Recommendations and Proposed Strategic Plan: Water Sector Decontamination Priorities*.

Within this task, the contractor shall assist the EPA WACOR to:

- Convene a workgroup with members from the Water Sector including drinking and waste water utilities, emergency responders, and States and other Federal Agencies involved in decontamination activities.
- Plan, schedule and facilitate conference calls and one (1) face-to-face meeting to discuss current recommendations in progress and to establish a path forward for those that have not been addressed.
- Update the Decontamination Website and plan, develop and conduct a series of webinars on decontamination related activities and issues. For the webinars, the contractor, among other things, shall schedule with the presenters, prepare agenda and other related materials, take notes during the webinar and conduct the webinar.

Special Reporting:

The Contractor shall submit a Monthly Progress Report detailing activities undertaken and completed each month with an indication of upcoming tasks to be performed and anticipated problem areas.

Meetings, Conferences, Training Events, Award Ceremonies and Receptions:

No single event under this work assignment is anticipated to exceed \$20,000. The contractor shall immediately notify the EPA Contracting Officer, CL-COR and WACOR of any anticipated event involving support for a meeting, conference, workshop, symposium, retreat, seminar or training that may potentially incur \$20,000 or more in cost during performance. Conference expenses are all direct and indirect costs paid by the government and include any associated

authorized travel and per diem expenses, room charges for official business, audiovisual use, light refreshments, registration fees, ground transportation and other expenses as defined by the Federal Travel Regulations. All outlays for conference preparation should be included, but the federal employee time for conference preparation should not be included. After notifying EPA of the potential to reach this threshold, the Contractor shall not proceed with the task(s) until authorized to do so by the Contracting Officer.

Schedule of Deliverables:

TASK No.	DELIVERABLE	DATE DUE TO EPA
Task 0: Workplan Submission		
	Workplan, budget, and QA supplemental (APS)	According to contract
	Monthly progress reports	Monthly
Task 1: Decontamination Preparedness and Assessment Strategy for Water Utilities		
	Draft content, flowcharts, and templates (worksheets)	Upon Written Technical Direction
	Draft templates to be populated	To Be Determined (TBD) via written Technical Direction
	Address EPA comments on draft content and templates (worksheets)	TBD via written Technical Direction
	Revise content from Internal (ORD, OEM) and External (stakeholders) Review	TBD via written Technical Direction
	Finalize content and provide mockup of draft tool	TBD via written Technical Direction
	Address EPA comments on draft mockup	TBD via written Technical Direction
	Draft of web-based tool interface	TBD via written Technical Direction
	Revised interface based on EPA Feedback	TBD via written Technical Direction
	Final web-based strategy guidance	TBD via written Technical Direction
Task 2: Decontamination Tabletop Exercise Toolkit (TTX)		
	Revise draft content and update as necessary	TBD via written Technical Direction
	Mockup of draft tool	TBD via written Technical Direction
	Draft of web-based tool interface	TBD via written Technical Direction
	Revised Interface based on EPA Feedback	TBD via written Technical Direction
	Final web-based tool	TBD via written Technical Direction
Task 3: Decontamination Preparedness and Assessment Workgroup		

	Initiate workgroup development (identify participants, establish goals/outcomes, etc.)	TBD via written Technical Direction
	Develop invitation emails, schedule conference calls	TBD via written Technical Direction
	Develop Agendas	TBD via written Technical Direction
	Prepare materials and update Decontamination website as needed	TBD via written Technical Direction
	Conduct conference calls/webinars	TBD via written Technical Direction
	Conduct face-to-face meeting (if necessary)	TBD via written Technical Direction

Miscellaneous:

Software Application Files and Accessibility

Software Application files, if delivered to the Government, shall conform to the requirements relating to accessibility as detailed to the 1998 amendments to the Rehabilitation Act, particularly, but not limited to, § 1194.21 Software applications and operating systems and § 1194.22 Web-based intranet and internet information and applications. See: <http://www.section508.gov/>

Preferred text format:	MS Word, 8.0 or higher (Office 2003 or higher)
Preferred presentation format:	Power Point, Office 2003 or higher
Preferred graphics format:	Each graphic is an individual GIF file
Preferred portable format:	Adobe Acrobat, version 6.0

VI. Quality Assurance Surveillance Plan

All task(s) identified in the performance work statement above are subject to review and approval by the WACOR based on the general guidelines of the contract quality assurance surveillance plan regarding: Programmatic, cost control, schedule, and document development standards.

EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment						Work Assignment Number 1-35				
						<input type="checkbox"/> Other <input type="checkbox"/> Amendment Number:				
Contract Number EP-C-15-022			Contract Period 09/01/2015 To 06/30/2017 Base Option Period Number 1			Title of Work Assignment/SF Site Name Water Lab Alliance Products				
Contractor CADMUS GROUP, INC., THE					Specify Section and paragraph of Contract SOW 2.1, 2.2, 2.3, 2.5, 2.7, 2.8, 2.9, 2.14, 2.15					
Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval						Period of Performance From 07/21/2016 To 06/30/2017				
Comments: The contractor is authorized to start work immediately on this WA.										
<input type="checkbox"/> Superfund Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
SFO <input type="checkbox"/> Note: To report additional accounting and appropriations date use EPA Form 1900-69A. (Max 2)										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:				LOE: 0				
09/01/2015 To 06/30/2017										
This Action:						2,950				
Total:						2,950				
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee			LOE:			
Cumulative Approved:				Cost/Fee			LOE:			
Work Assignment Manager Name George Gardenier							Branch/Mail Code:			
_____ (Signature) (Date)							Phone Number: 202-564-3333			
							FAX Number:			
Project Officer Name Nancy Parrotta							Branch/Mail Code:			
_____ (Signature) (Date)							Phone Number: 202-564-5260			
							FAX Number:			
Other Agency Official Name							Branch/Mail Code:			
_____ (Signature) (Date)							Phone Number:			
							FAX Number:			
Contracting Official Name Tammy Adams							Branch/Mail Code:			
_____ (Signature) (Date)							Phone Number: 513-487-2030			
							FAX Number: 513-487-2545			

PERFORMANCE WORK STATEMENT
Cadmus EP-C-15-022
Work Assignment No. 1-35

Title: Water Lab Alliance Products to Enhance Water Sector Preparedness for All Hazards

Work Assignment Contracting Officer Representative (WACOR): George Gardenier
Office of Ground Water and Drinking Water (OGWDW)
1200 Pennsylvania Avenue, NW (MC: 4608T)
Washington, DC 20460
202-564-3333
gardenier.george@epa.gov

Alternate WACOR: Latisha Mapp
Office of Ground Water and Drinking Water (OGWDW)
1200 Pennsylvania Avenue, NW (MC: 4608T)
Washington, DC 20460
202-564-1390
Mapp.latisha@epa.gov

LOE: 2950

Quality Assurance:

The tasks in this work assignment do not require quality assurance (QA). Consistent with the Agency's QA requirements, the contractor does not need to supplement the Contract Quality Assurance Project Plan (QAPP) or to prepare a Project Specific Quality Assurance project Plan (PQAPP).

Purpose:

The purpose of this work assignment is to implement the Water Laboratory Alliance (WLA), leading towards the sustainability of an alliance of laboratories to support drinking water response across a spectrum of activities including preparedness, response, remediation, and recovery.

To achieve this purpose the contractor shall be expected to provide technical support to the Environmental Protection Agency's (EPA's) continued development and implementation of the WLA. Contractor support shall be required in the following areas:

- Training and Laboratory tool development for State Laboratories and Water Utilities
- Distribution and Education of analytical capabilities
- Planning and facilitating the WLA Security Summit

Background:

This work is in response to Homeland Security Presidential Directive 9 (HSPD-9), which directed EPA to "build upon and expand current monitoring and surveillance programs to:

1. *Develop robust, comprehensive, and fully coordinated surveillance and monitoring systems...for...water quality that provide early detection and awareness of disease, pest or poisonous agents.*
2. *Develop nationwide laboratory networks for...water quality that integrate Federal and state laboratory resources, are interconnected, and utilize standardized diagnostic protocols and procedures."*

In response to the first task under HSPD 9, EPA proposed and initiated development of a Contaminant Warning System designated as the Water Security Initiative, now known as the Water Quality Surveillance and Response System (SRS) effort. To address the second major task under HSPD-9, EPA has established the Water Laboratory Alliance. The Water Laboratory Alliance is supported by the WLA-

Response Plan which provides both the environmental laboratory and Water Sector with a national plan for analyzing a surge of drinking water and wastewater samples.

The intended audience for these efforts is the nation's drinking and wastewater utilities as well as the environmental laboratory sector, which performs analytical services to support them. Specifically, this work assignment is designed to conduct tasks that will support the information sharing, coordination and recovery from drinking water and wastewater contamination events. In addition, it supports the Water Sector being informed, coordinated, and prepared to prevent, detect, respond to, and recover from terrorist attacks and other hazards. Examples may include natural disasters, catastrophic events, impacts of climate change, floods, earthquakes, pandemic illness, and any other events which impact the safety and availability of our water supply.

The work under this Work Assignment supports programmatic needs related to our national all-hazards homeland security responsibilities by supporting the mission of the Water Security Division (WSD) as described in the Water Security Strategy framework, which relates resources, activities, outputs, audience, short- and long- term outcomes to the WSD pillars of Prevention, Detection, Response, and Recovery. Additionally, this work assignment contributes to the commitments made in EPA's *Strategic Plan: 2011 to 2015* and EPA's *Homeland Security Strategy (2004)*. Under EPA's *Strategic Plan*, reference is made to Goal 2 (Clean and Safe Water), Objective 2.1 (Protecting Human Health), Sub-objective 2.1.1 (Water Safe to Drink), and to the Cross-Goal on homeland security. Under EPA's *Homeland Security Strategy*, reference is made to Objective 1 (Critical Infrastructure Protection).

Other partners and external offices or agencies which should be included in coordination, and the nature of their involvement, are the Centers for Disease Control and Prevention (CDC) in order to leverage the CDC's Laboratory Response Network (LRN) infrastructure. The LRN is a system of State public health departments capable of responding quickly to an emergency event. EPA will continue to work with U.S. Department of Agriculture (USDA) and Food and Drug Administration (FDA) representatives for the Food Emergency Response Network (FERN), where appropriate, to leverage infrastructure from additional existing laboratory networks to fill remaining gaps. EPA will continue to work with a broad sector of stakeholders including State health laboratories, State drinking water and/or environmental laboratories, drinking water utility representatives, commercial laboratories, and other Federal agencies, as appropriate, to discuss the proposed approach for the Water Laboratory Alliance and identify potential enhancements. The WLA is the water component of EPA's Environmental Response Laboratory Network (ERLN) being led by the Office of Land and Emergency Management (OLEM).

WSD has worked with other partners to develop a suite of products, including tools and resources in support of the WLA. One of these tools is the draft Analytical Preparedness Self-Assessment (APS) Toolbox. This toolbox is designed to compile the suite of tools and resources developed by the WLA and its Water Security to increase analytical preparedness. The APS will provide external stakeholders a unified platform describing the critical need addressed by each tool or resource as well as a "big picture" view of analytical preparedness. The draft APS contains a series of questions for the user to answer in order to receive a customized checklist of actionable recommendations that can be used to improve analytical preparedness upon implementation. The draft tool will be provided to the contractor as part of this Work Assignment to aid the design and development of an easily accessible web-based tool.

Scope of Work

All direction under this work assignment will be provided as written technical direction from the WACOR or alternate WACOR. If provided first as verbal technical direction to the contractor, it will be confirmed in writing within 5 calendar days with a copy to the Contract-Level Contracting Officer's Representative (CL-COR) and the Contracting Officer (CO), and is subject to the limitations of the technical direction contract clause. Each initial deliverable shall be provided to the EPA WACOR and

EPA CL-COR in draft form for review and comment. The contractor shall incorporate WACOR review comments into revisions of the drafts. All drafts and final reports shall be approved by the WACOR.

Under the WA 1-35, the WACOR will provide the contractor electronic copies of the tools and resources for the contractor to perform the following tasks:

Task Detail:

Task 0 – Work Plan Submission, Progress Evaluations and Monthly Reports

The contractor shall develop a work plan that describes how each task will be carried out. The work plan shall include a schedule, staffing plan, level of effort (LOE), and cost estimate for each task, the contractor's key assumptions on which staffing plan and budget are based, and qualifications of proposed staff. If a subcontractor(s) is proposed and subcontractors are outside the local metropolitan area, the contractor shall include information on plans to manage work and contract costs. In addition, the work plan shall specify that a Supplemental Project Specific Quality Assurance Project Plan (SQAPP) appending the Contract QAPP or a PQAPP is not required. This task also includes monthly progress and financial reports. Monthly financial reports must include a table with the invoice LOE and cost amount broken out by the tasks in this WA.

Deliverables: Work plan and monthly progress and financial reports.

Task 1 – WLA Security Summit

The objective of this task is to initiate the 2016 Water Laboratory Alliance Security Summit. The purpose of the WLA Security Summit is to expand the WLA membership (by inviting key states), focusing on the water utility sector whose representation is currently limited in the WLA. Summit success will be measured by the number of organizations, states and water utilities invited. The summit is intended to provide potential WLA members an overview of the program and solicit their membership. Specific requirements to organize and conduct the Summit include:

- Identifying and reserving the venue(s)
- Identifying presenters and participants
- Locating hotels and assisting with other travel arrangements
- Developing the agenda and other meeting materials
- Hosting/conducting/facilitating the summit
- Developing evaluation tools
- Taking minutes and notes
- Distributing follow up materials and Summit reports.

Task 2 – Analytical Preparedness Self –Assessment (APS)

The contractor shall develop a web-based user interface of the draft Analytical Preparedness Self-Assessment (APS) tool, in accordance with technical direction. The WACOR will provide electronic copy of the draft APS in Microsoft Word format to the contractor for the development of the web-based user interface. The draft APS currently has 22 questions spanning 19 topics to be converted in a series of navigation pages and screens for the user to navigate and respond to the questions. The contractor shall be able to group the questions on various sequential screens, and include text fields for answers to open-ended questions. The web-based tool will generate a customized checklist of actionable recommendations, and a printable recommendations report after the user has answered the questions. The web-based pages shall be developed using a programming language and computing platform that will maximize compatibilities with browsers (e.g. Internet Explorer) and operating systems (e.g. Windows) and internet access (e.g. high speed). The contractor shall provide the WACOR with a mockup of the

web-based pages for review. The WACOR will provide comments and after programming, the contractor shall provide the WACOR with a draft web-based user interface to answer each question and check the corresponding entry in the database. After review by the WACOR, the contractor shall finalize the web-based tool.

Special Reporting:

The Contractor shall submit a Monthly Progress Report detailing activities undertaken and completed each month with an indication of upcoming tasks to be performed and anticipated problem areas.

Meetings, Conferences, Training Events, Award Ceremonies and Receptions:

The contractor shall immediately alert the WACOR to any anticipated event under the work assignment which may result in incurring an estimated \$20,000 or more cost, funded by EPA, specific to that event, meeting, training, etc. Those costs would include travel of both prime and consultant personnel, planning and facilitation costs (including all outlaying preparation cost), AV and rental of venue costs, etc. The EPA WACOR will then prepare for the approval of the internal paperwork for the event and will advise the Contracting Officer (CO) when appropriate signatures have been obtained. The CO will notify the contractor. At that point, effort can proceed for the event. If the event is being sponsored by another EPA organization, the organization providing the planning is responsible for the approval.

Schedule of Deliverables:

TASK No.	DELIVERABLE	DATE DUE TO EPA
Task 0: Workplan Submission		
	Workplan, budget, and QA supplemental (APS)	According to contract.
	Monthly progress reports	Monthly
Task 1: WLA Security Summit		
	Planning schedule and task list	To Be Determined (TBD) via written Technical Direction
	List of potential venues	TBD via written Technical Direction
	Venue reservations	TBD via written Technical Direction
	List of potential speakers	TBD via written Technical Direction
	List of potential participants	TBD via written Technical Direction
	Assistance with travel arrangements	TBD via written Technical Direction
	Draft agenda	TBD via written Technical Direction
	Speaker bios	TBD via written Technical Direction
	Meeting program, abstracts, etc.	TBD via written Technical Direction
	Speaker presentations and talking points	TBD via written Technical Direction

	Compiled speaker presentations	TBD via written Technical Direction
	Handouts and other supplementary educational and training materials	TBD via written Technical Direction
	Facilitation of the summit	TBD via written Technical Direction
	Feedback forms	TBD via written Technical Direction
	Summary and wrap-up materials, including participant list and compiled feedback from participants.	TBD via written Technical Direction
	Other planning, facilitation and training materials for the WLA Security Summit requested by EPA	TBD via written Technical Direction
Task 2: Analytical Preparedness Self-Assessment		
	Mockup	TBD via written Technical Direction
	Revised Mockups based on EPA (WACOR, Branch Chief and WSD Management) feedback	TBD via written Technical Direction
	First Draft of User Interface	TBD via written Technical Direction
	Revised Interface based on EPA and other reviewer Feedback (number of revisions will depend on the number and complexity of EPA and other reviewer comments. For planning purposes, the anticipated revisions include: 1 preliminary EPA Review, followed by external review, and one final EPA review.)	TBD via written Technical Direction
	Final User Experience/Interface	TBD via written Technical Direction

Miscellaneous:

Software Application Files and Accessibility

Software Application files, if delivered to the Government, shall conform to the requirements relating to accessibility as detailed to the 1998 amendments to the Rehabilitation Act, particularly, but not limited to, § 1194.21 Software applications and operating systems and § 1194.22 Web-based intranet and internet information and applications. See: <http://www.section508.gov/>

Preferred text format:	MS Word, 8.0 or higher (Office 2003 or higher)
Preferred presentation format:	Power Point, Office 2003 or higher
Preferred graphics format:	Each graphic is an individual GIF file
Preferred portable format:	Adobe Acrobat, version 6.0

Quality Assurance Surveillance Plan

All task(s) identified in the performance work statement above are subject to review and approval by the EPA WACOR based on the general guidelines of the contract quality assurance surveillance plan regarding: Programmatic, cost control, schedule, and document development.

EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment						Work Assignment Number 1-35				
						<input type="checkbox"/> Other <input checked="" type="checkbox"/> Amendment Number: 000002				
Contract Number EP-C-15-022			Contract Period 09/01/2015 To 06/30/2017			Title of Work Assignment/SF Site Name				
			Base Option Period Number 1			Water Lab Alliance				
Contractor CADMUS GROUP, INC., THE					Specify Section and paragraph of Contract SOW 2.1, 2.2, 2.3, 2.5, 2.7, 2.8, 2.9, 2.14, 2.15					
Purpose: <input type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input checked="" type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval					Period of Performance From 12/07/2016 To 06/30/2017					
Comments: The purpose of this amendment 2 to Cadmus (EP-C-15-022) WA 1-35 is to change the WACORs so that Latisha Mapp is now the primary WACOR and George Gardenier is now the alternate WACOR. In addition, the contractor may proceed with the hotel reservations for task 1. The food and beverages have been removed from task 1										
<input type="checkbox"/> Superfund					Accounting and Appropriations Data					<input checked="" type="checkbox"/> Non-Superfund
SFO <input type="checkbox"/> (Max 2) Note: To report additional accounting and appropriations date use EPA Form 1900-69A.										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:				LOE: 2,950				
09/01/2015 To 06/30/2017										
This Action:						0				
Total:						2,950				
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee		LOE:				
Cumulative Approved:				Cost/Fee		LOE:				
Work Assignment Manager Name Latisha Mapp						Branch/Mail Code:				
						Phone Number: 202-564-1390				
_____ (Signature) (Date)						FAX Number:				
Project Officer Name Nancy Parrotta						Branch/Mail Code:				
						Phone Number: 202-564-5260				
_____ (Signature) (Date)						FAX Number:				
Other Agency Official Name Erin Ridder						Branch/Mail Code:				
						Phone Number: 513-487-2155				
_____ (Signature) (Date)						FAX Number:				
Contracting Official Name Donna Reinhart						Branch/Mail Code:				
						Phone Number: 513-487-2114				
_____ (Signature) (Date)						FAX Number:				

PERFORMANCE WORK STATEMENT
Cadmus EP-C-15-022

Work Assignment No. 1-35 Amendment 2

Title: Water Laboratory Alliance and the Water Contaminant Information Tool

Work Assignment Contracting Officer

Representative (WACOR): Latisha P. Mapp
Office of Ground Water and Drinking Water (OGWDW)
1200 Pennsylvania Avenue, NW (MC: 4608T)
202-564-1390
mapp.latisha@epa.gov

Alternate WACOR: George Gardenier
Office of Ground Water and Drinking
Water (OGWDW)
1200 Pennsylvania Avenue, NW
Mailcode: 4608T
Washington, DC 20460
202-564-3333
gardenier.george@epa.gov

LOE: 791

The purpose of this amendment is to revised Task 1 to include permission for Cadmus to secure hotel conference space for (2) days supporting the WLA Security Summit in addition to the necessary AV equipment for the meeting.

EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment						Work Assignment Number 1-36				
						<input type="checkbox"/> Other <input type="checkbox"/> Amendment Number:				
Contract Number EP-C-15-022			Contract Period 09/01/2015 To 06/30/2017 Base Option Period Number 1			Title of Work Assignment/SF Site Name Multi-Media Outreach				
Contractor CADMUS GROUP, INC., THE					Specify Section and paragraph of Contract SOW 7.0					
Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval						Period of Performance From 07/19/2016 To 06/30/2017				
Comments: Work other than the Work Plan is authorized to begin immediately.										
<input type="checkbox"/> Superfund Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
SFO <input type="checkbox"/> Note: To report additional accounting and appropriations date use EPA Form 1900-69A. (Max 2)										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:				LOE:				
09/01/2015 To 06/30/2017										
This Action:										
Total:										
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee			LOE:			
Cumulative Approved:				Cost/Fee			LOE:			
Work Assignment Manager Name Nushat Thomas <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>							Branch/Mail Code:			
							Phone Number: 202-564-4674			
							FAX Number:			
Project Officer Name Nancy Parrotta <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>							Branch/Mail Code:			
							Phone Number: 202-564-5260			
							FAX Number:			
Other Agency Official Name <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>							Branch/Mail Code:			
							Phone Number:			
							FAX Number:			
Contracting Official Name Tammy Adams <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>							Branch/Mail Code:			
							Phone Number: 513-487-2030			
							FAX Number: 513-487-2545			

**WORK ASSIGNMENT
PERFORMANCE WORK STATEMENT (PWS)**

Contract No. EP-C-15-022

Work Assignment: WA 1-36

Work Assignment Contracting Officer Representative (WACOR):

Name: Nushat Thomas
Branch: Security Assistance Branch
Division: Water Security Division
Office: Office of Groundwater and Drinking Water
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FAX: 202-566-0055
E-mail: thomas.nushat@epa.gov
Mail code: 4608T
Street Address: 1200 Pennsylvania Ave
City, State, Zip: Washington, DC 20460

Alt WACOR: Name: Karen Edwards
Branch: Security Assistance Branch
Division: Water Security Division
Office: Office of Groundwater and Drinking Water
Phone: 202-564-3797
FAX: 202-566-0055
E-mail: edwards.karen@epa.gov
Mail code: 4608T
Street Address: 1200 Pennsylvania Ave
City, State, Zip: Washington, DC 20460

Task Manager:

Name: Chrissy Dangel
Branch: Security Assistance Branch
Division: Water Security Division
Office: Office of Groundwater and Drinking Water
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Mail code: 140
Street Address: 26 West Martin Luther King Drive
City, State, Zip: Cincinnati, OH 45268

Period of Performance: Date of Issuance to Jun 30, 2017

Title: Multimedia Marketing and Interdependencies Support

PWS Sections: 7.0, 7.1, 7.2, 7.3, 7.4

I. OVERVIEW:

The purpose of this work assignment (WA) is to support the Water Security Division (WSD) in promoting their tools and resources to drinking water and wastewater utilities and other intended audiences. This work will also support the Water Sector in raising awareness among other critical sectors at federal, state and local levels, about the importance of water and its role as a lifeline sector. In addition, this work supports the Water Sector in motivating other sectors to support:

- (a) Increased prioritization of water services restoration
- (b) Enhancements to critical water infrastructure

This project will use a variety of traditional and multimedia tools (e.g., blogs, videos, social media, infographics, etc.) to promote use of WSD's Route to Resilience Tool, and other WSD products, by water utilities to increase their motivation to enhance water utility and community resilience. It also expands WSD's impact on the Water Sector by ensuring complementary EPA offices and programs understand the WSD mission and cross-promote WSD products and services through their respective outreach efforts. Finally, this project will also support WSD efforts to maintain the Vulnerability Assessment Vault Room.

The intended audience for this project is the Water Sector; interdependent sectors; federal, state, and local partners; and complementary EPA programs. Partners and external offices or agencies which should be included in coordination, and the nature of their involvement, are the Office of Ground Water and Drinking Water; the Office of Wastewater Management; Water Sector; Energy Sector; Healthcare and Public Health Sector; Regional drinking water programs; Water Security Partners; Water Sector and Government Coordinating Council; and representatives of other interdependent sectors.

This project supports programmatic needs related to our national all hazards homeland security responsibilities through sound and effective outreach, communication, and training efforts. EPA seeks to enhance security by encouraging and facilitating the voluntary adoption of all-hazards preparedness and resiliency practices. EPA shall achieve this end through contractor supported multi-sector interdependencies and marketing and communication efforts.

This work assignment supports the mission of the Water Security Division (WSD) as described in the Water Security Strategy framework, which relates resources, activities, outputs, audience, short- and long- term outcomes to the WSD pillars of Prevention, Detection, Response, and Recovery. Additionally, this work assignment contributes to the commitments made in EPA's *Strategic Plan: 2014 to 2018* and EPA's *Homeland Security Strategy (2004)*. Under EPA's *Strategic Plan*, reference is made to Goal 2 (Protecting America's Waters. Under EPA's *Homeland Security Strategy*, reference is made to Objective 1 (Critical Infrastructure Protection).

In support of these requirements, this work assignment supports the nation's drinking and wastewater infrastructure, collectively known as the Water Sector, in being informed, coordinated, and prepared to prevent, detect, respond to, and recover from terrorist attack and other intentional acts, natural disasters, and other hazards (referred to as the "all hazards" approach), which may also occur, including the needs and challenges posed by natural disasters, catastrophic events, adaptation and impacts of climate change, floods, earthquakes, pandemic illness, and any other events which impact the safety and availability of our water supply.

II. BACKGROUND:

Title IV of the Public Health Security and Bioterrorism Response Act of 2002 (Bioterrorism Act) amends the Safe Drinking Water Act (SDWA) and authorizes EPA to take several actions to increase the security and resilience of the Nation's drinking water supplies against terrorist attacks. The Presidential Policy Directive (PPD) 21 designated EPA as the lead federal agency for the drinking water and wastewater sector – a critical national infrastructure.

As part of increasing security and readiness, EPA is responsible for providing water utilities, and organizations that support them, with the latest information to prepare for, and respond to, all hazards. To enhance the preparedness and resiliency of the Water Sector, WSD must also raise awareness of the importance of water resiliency among key partners and stakeholders, such as emergency managers, energy providers, public health officials, and other critical sectors. The key to the success of these projects, as well as any future projects, is adequate communications with others across the Division, with complementary EPA programs, and with stakeholders outside of EPA. Multi-sector interdependencies and multimedia communication has been, and continues to be, an integral part of WSD's work.

This work assignment is a continuation of work conducted in previous years. Implementation and training on the communications and outreach efforts, as well as meeting and conference call support, will continue under this work assignment.

III. QA REQUIREMENTS:

The tasks in this WA do not require environmental measurements. Consistent with the Agency's quality assurance (QA) requirements, the contractor does not need to supplement the approved Quality Management Plan (QMP) of the contract or prepare a Project-Specific Quality Assurance Project Plan (PQAPP).

IV. DETAILED TASK DESCRIPTION:

All requests under this WA will be provided as written technical direction from the WACOR or Alternate WACOR if the WACOR is on travel or vacation. If provided first as verbal technical direction to the contractor, it will be confirmed in writing within 5 calendar days, with a copy to the Contract Level Contracting Officer's Representative (CLCOR) and the Contracting Officer (CO), and is subject to the limitations of the technical direction contract clause. Each initial deliverable shall be provided to the EPA WACOR and EPA CLCOR in draft form for review and comment. The contractor shall

incorporate WACOR review comments into revisions of the drafts. All drafts and final reports shall be approved by the WACOR.

The contractor shall perform the following tasks:

Task 0: Work Plan, and Monthly Progress Reports

The contractor shall develop a work plan that describes how each task will be carried out. The work plan shall include a schedule, staffing plan, level of effort (LOE), and cost estimate for each task, the contractor's key assumptions on which staffing plan and budget are based, and qualifications of proposed staff. In addition, the work plan shall include the requirement that all electronic and information technology (EIT) and all EIT deliverables be Section 508 compliant in accordance with the policies referenced at <http://www.epa.gov/accessibility/>. If a subcontractor(s) is proposed and subcontractors are outside the local metropolitan area, the contractor shall include information on plans to manage work and contract costs. In addition, the work plan shall specify that a Supplemental Project Specific Quality Assurance Project Plan (SQAPP) appending the Contract Level QAPP or a PQAPP is not required. This task also includes monthly progress and financial reports. Monthly financial reports must include a table with the invoice LOE and cost amount broken out by the tasks in this WA.

Deliverables: Work plan and monthly progress and financial reports.

Task 1: Multimedia Outreach to Water Sector & Key Stakeholders

To promote the awareness of WSD tools and resources, WSD designs materials to inform water utilities about WSD products and motivates them to implement activities that will increase resilience to all-hazards. WSD also seeks to increase the Water Sector's opportunities to influence WSD product and service development in order to ensure WSD products best reflect Water Sector needs by using every external communication touch point as an opportunity to obtain information about Water Sector resiliency and preparedness needs and ensure each outreach opportunity has a clearly defined purpose and desired outcomes.

To support these efforts, the contractor shall support four Water Security Partners meetings and six regional call meetings. The contractor shall develop blogs, social media updates and other multimedia resources to promote use of WSD's products, especially during relevant months/weeks such as National Preparedness Month. The contractor shall register for and if necessary, staff WSD's exhibit booth and support the development of a quarterly WSD electronic newsletter to WSD Partners and stakeholders promoting awareness and adoption of WSD products and highlighting water preparedness and resiliency efforts of WSD Partners and key stakeholders. The contractor shall update the WSD widget which highlights WSD tools and resources and support the outreach process to increase the number of sites where it is used. Upon technical direction, the contractor will produce one minute-long promotional video highlighting WSD's key project areas. The contractor shall complete the update of the Water Resilience Handbook based on the guidance and tools available to the sector and in alignment with the new Route to Resilience tool. The contractor shall develop an integrated regional training calendar to highlight training that will occur during the year. The contractor shall develop promotional items for new WSD products for use at the conferences and exhibits. The contractor will also assist WSD in

identifying additional unrealized outreach activities.

In addition, the contractor will work with WSD to develop an ambassador program for water utilities who will act as promoters of water resilience activities with the sector.

Deliverables:

1. Widget Updates (2)
2. What's Going On Newsletter (4)
3. Social Media Packages (5)
4. Videos (1)
5. Conferences & Exhibits (3)
6. Webinars (2)
7. Conversation Starters for New Products (3)
8. Images for promotional materials (30)
9. Promotional Products- Infographics, etc. (5)
10. Partners Meeting Support (4)
11. Regional Call Support (6)
12. Ambassador Program (1)

Task 2: Multi-Sector Interdependencies: Raising Profile of the Water Sector

WSD promotes and facilitates Water Sector resiliency by fostering partnerships with critically interdependent organizations and sectors at the federal, state, and local level. Specifically, WSD seeks to raise awareness about the criticality of water among interdependent sectors and the cascading effects of water system failures. WSD also seeks to ensure local utilities recognize opportunities for, and establish partnerships with, key players in other interdependent sectors, including Emergency Services, Energy, Healthcare and Public Health Sectors and others. WSD will provide tools and resources for local utilities to demonstrate the criticality of water services to influential voices in their communities in order to enhance water utility resilience. The contractor may be tasked to provide logistical support for webinars and workshops for this task. A low level of effort is anticipated to support the workshops.

The contractor will also support WSD in completing the development of an 30-minute online Community-Based Water Resiliency project training for water utilities and the communities they serve similar in structure to the Wastewater All-Hazards Bootcamp for Drinking Water and Wastewater Utilities

Deliverables:

1. Community-Based Water Resiliency Online Training (1)
2. Workshop logistical support (TBD)

Task 3: Vault Room

The purpose of this project is to maintain the documents received by EPA under the requirements of the Public Health Security and Bioterrorism Preparedness and Response Act of 2002 (Bioterrorism Act). This project supports programmatic needs related to our national homeland security responsibilities by

fulfilling the requirements of the Bioterrorism Act.

To achieve this purpose the contractor shall be responsible for document handling, data entry, filing, and overall document management in accordance with EPA's Information Security Protocol and National Security Information (NSI) procedures. While the documents are not technically classified as National Security Information (NSI), they are treated in a comparable manner, in accordance with the Bioterrorism Act. The contractor shall follow relevant and appropriate procedures for handling and managing documents. The contractor shall work in accordance with the written technical direction of the WACOR. Any questions or issues that arise during the course of this work assignment should be directed to the WACOR.

Deliverables:

1. Appropriate storage and handling of sensitive documents in accordance with applicable requirements

V. SCHEDULE/DELIVERABLES

- The contractor(s) shall send EPA all reports in accordance with the terms of the basic contract. All deliverables shall be submitted electronically by email in Microsoft format (e.g., Word, Excel, Access, etc.), in addition to a hard copy submittal, as requested by the WACOR.
- All marketing materials will be delivered in plain language and at an 8th grade reading level.
- The contractor shall provide a work plan as set out in the table below.
- All reports shall be provided first in draft form. Upon receipt of comment from the WACOR, the contractor shall revise the report and finalize the report accordingly.
- All outreach and training materials shall be approved by the WACOR prior to their release.

Final deliverables are due no later than 7 days after receiving WACOR comment, unless the WACOR provides written technical direction indicating otherwise.

Other Deliverable Expectations:

Draft Meeting Agenda	2 weeks before meeting
Final Meeting Agenda	2 days before meeting
Draft Meeting Summaries	2 days after meeting dates
Final Meeting Summaries	2 days after receipt of WACOR(s) comment

<u>Deliverable</u>	<u>Due No Later Than</u>
Task 0: Work Plan, Progress Evaluations and Monthly Progress Reports <ol style="list-style-type: none"> 1. Work Plan 2. Monthly Progress and Financial Reports 	According to Contract
Task 1: Multi-Sector Interdependencies: Raising the Profile of the Water Sector <ol style="list-style-type: none"> 1. Widget Updates (2) 2. What's Going On Newsletter (4) 3. Social Media Packages 4. Videos (1) 5. Conferences & Exhibits (3) 6. Webinars (4) 7. Conversation Starters for New Products (5) 8. Images for journal articles and website (30) 9. Promotional Products- Infographics, etc. (5) 10. Partners Meeting Support (4) 11. Regional Call Support (6) 12. Ambassador Program (1) 	<ol style="list-style-type: none"> 1. Bi-annual 2. Quarterly 3. Upon technical direction 4. Upon technical direction 5. Upon technical direction 6. Quarterly 7. Upon technical direction 8. Upon technical direction 9. Upon technical direction 10. Quarterly 11. Upon technical direction 12. Upon technical direction
Task 2: Multi-Media Outreach to the Water Sector and Key Stakeholders <ol style="list-style-type: none"> 1. Community-Based Water Resiliency Online Training 2. Workshop support 	<ol style="list-style-type: none"> 1. Upon technical direction 2. Upon technical direction
Task 3: Vault Room <ol style="list-style-type: none"> 1. Appropriate storage and handling of sensitive documents in accordance with applicable requirements 	<ol style="list-style-type: none"> 1. Upon technical direction

VI. REPORTING REQUIREMENTS

Monthly Progress Reports
Financial Reports

VII. GREEN MEETINGS AND CONFERENCES

The contractor shall follow the provision of EPA prescription 1523.703-1, *Acquisition of environmentally preferable meeting and conference services (May 2007)*, for the use of off-site commercial facilities for an EPA event, whether the event is a meeting, conference, training session, or other purpose. Environmental preferability is defined at FAR 2.101, and shall be used when soliciting quotes or offers for meeting/conference services on behalf of the Agency.

VIII. CONFERENCES AND WORKSHOPS

The tasks under this work assignment may require the acquisition of “off-site” facilities for conferences and meetings as defined in the IPN 12-05. The events associated with this work assignment are covered by EPA Order 1900.3 and do require EPA Form 5170.

The contractor shall immediately alert the WACOR to any anticipated event under the work assignment which may result in incurring an estimated \$20,000 or more cost, funded by EPA, specific to that event, meeting, training, etc. Those costs would include travel of both prime and consultant personnel, planning and facilitation costs, AV and rental of venue costs, etc. The EPA WACOR will then prepare for approval the internal paperwork for the event and will advise the Contracting Officer when appropriate signatures have been obtained. Work under conference related activities and expenses shall not occur until this approval is obtained and provided by the EPA CO.

If the event is being sponsored by another EPA organization, the organization providing the planning is responsible for the approval.

IX. SOFTWARE APPLICATION AND ACCESSIBILITY (SECTION 508 REHABILITATION ACT AND AMENDMENTS)

Software Application files, if delivered to the Government, shall conform to the requirements relating to accessibility as detailed to the 1998 amendments to the Rehabilitation Act, particularly, but not limited to, § 1194.21 Software applications and operating systems and § 1194.22 Web-based intranet and internet information and applications. See: <http://www.section508.gov/>

Preferred text format:	MS Word, 8.0 or higher (Office 2007 or higher)
Preferred presentation format:	Power Point, Office 2007 or higher
Preferred graphics format:	Each graphic is an individual GIF file
Preferred portable format:	Adobe Acrobat, version 6.0

All delivered products intended for external EPA use will require 508 compliance.

QUALITY ASSURANCE SURVEILLANCE PLAN (QASP)

The contract level QASP is applicable to this WA.

EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment						Work Assignment Number 1-37				
						<input type="checkbox"/> Other <input type="checkbox"/> Amendment Number:				
Contract Number EP-C-15-022			Contract Period 09/01/2015 To 06/30/2017 Base Option Period Number 1			Title of Work Assignment/SF Site Name Emergency Preparedness				
Contractor CADMUS GROUP, INC., THE					Specify Section and paragraph of Contract SOW 2.2, 2.3, 6.1, 6.2, 6.3, 7.1, 7.2, 7.3, 7.4, 7.6					
Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval						Period of Performance From 07/19/2016 To 06/30/2017				
Comments: The WA is authorized for immediate start. If the work plan is not approved within 35 days from the issue date of the WA the contractor shall stop work. The task managers do not have WACOR/ALTWACOR authority. Only the appointed WACOR/ALTWACOR issue technical direction.										
<input type="checkbox"/> Superfund Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
SFO <input type="checkbox"/> Note: To report additional accounting and appropriations date use EPA Form 1900-69A. (Max 2)										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:		LOE:						
09/01/2015 To 06/30/2017				0						
This Action:				3,570						
Total:				3,570						
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee		LOE:				
Cumulative Approved:				Cost/Fee		LOE:				
Work Assignment Manager Name Brian Pickard <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 202-564-0827 FAX Number:				
Project Officer Name Nancy Parrotta <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 202-564-5260 FAX Number:				
Other Agency Official Name Erin Ridder <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 513-487-2155 FAX Number:				
Contracting Official Name Donna Reinhart <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 513-487-2114 FAX Number:				

**WORK ASSIGNMENT (WA)
PERFORMANCE WORK STATEMENT (PWS)**

Contract No. EP-C-15-EP-C-15-022

Work Assignment: WA-01-37

WACOR: **Name:** **Brian Pickard**
 Branch: **Security Assistance Branch**
 Division: **Water Security Division**
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 E-mail: **Pickard.Brian@epa.gov**
 Mail code: **4608T**
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 City, State, Zip: **Washington, DC 20460**

Alt WACOR: **Name:** **Kevin Tingley**
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 Division: **Water Security Division**
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 Phone: **202-564-4619**
 FAX: **202-566-0055**
 E-mail: **Tingley.Kevin@epa.gov**
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 Street Address: **1200 Pennsylvania Ave., NW**
 City, State, Zip: **Washington, DC 20460**

Task Managers:

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Name: **Kevin Tingley**
 Branch: **Security Assistance Branch**

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FAX: 202-566-0055
E-mail: fencil.jeffrey@epa.gov
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Street Address: 1200 Pennsylvania Ave., NW
City, State, Zip: Washington, DC 20460

Period of Performance: August 1, 2016 to July 31, 2017

Title: Emergency Preparedness, Response and Recovery_____

PWS Sections: 2.2, 2.3, 6.1, 6.2, 6.3, 7.1, 7.2, 7.3, 7.4, 7.6_____

I. PURPOSE:

The purpose of this work assignment is to augment the Environmental Protection Agency's efforts to protect the nation's water infrastructure. The nation's water infrastructure is subject to threats from various entities, as well as natural disasters, and preparedness information, training, and insight will provide support toward improved response to threats and incidents. Under this work assignment, the contractor shall provide support to the Office of Water, Water

Security Division (OW/WSD) (and other identified EPA offices or partners that come within the scope of this work statement) in its effort to: enhance and promote national emergency preparedness, disaster response, and mutual aid and assistance for public and private water and wastewater utilities, states and federal partners on a national level; and develop national response exercises and activities related to these and other infrastructure threats and incidents.

To achieve this purpose, the contractor shall research, develop, maintain, edit, and disseminate technical information, guidelines, drills, field exercises, web tools, and procedures to aid in emergency preparedness, response and recovery; and shall track and coordinate efforts, drills, exercises and threats related to water security. The contractor may also be tasked with related efforts, including facilitating and coordinating water utility response networks to support and promote national emergency preparedness. Other requirements related to infrastructure analysis, strategic planning, tracking and measuring progress, mission priorities, communications, and emergency options for energy, communications, or transportation sectors may become necessary, subject to developing events.

Examples of other partners and external offices or agencies which may be included in coordination, and the nature of their involvement, are:

- Drinking water and wastewater associations and stakeholders: provide feedback on the needs of utilities and review information provided for dissemination;
- State and local governments/associations: provide feedback on the activities for state and local agencies including primacy agencies and emergency management agencies;
- Department of Homeland Security: the organizers and lead agency for the development of national exercises;
- EPA National Homeland Security Research Center: close partners of the Water Security Division in support of water security research;
- National Emergency Management Agency: administers the Emergency Management Assistance Compact (EMAC); and
- Regional offices of the EPA.

This work assignment supports the mission of the Water Security Division (WSD) as described in the Water Security Strategy framework, which relates resources, activities, outputs, audience, short- and long- term outcomes to the WSD pillars of Prevention, Detection, Response, and Recovery. Additionally, this work assignment contributes to the commitments made in EPA's *Strategic Plan: 2011 to 2015* and EPA's *Homeland Security Strategy (2004)*. Under EPA's *Strategic Plan*, reference is made to Goal 2 (Clean and Safe Water), Objective 2.1 (Protecting Human Health), Sub-objective 2.1.1 (Water Safe to Drink), and to the Cross-Goal on homeland security. Under EPA's *Homeland Security Strategy*, reference is made to Objective 1 (Critical Infrastructure Protection).

In support of these requirements, this contract supports the nation's drinking and wastewater

infrastructure, collectively known as the Water Sector, in being informed, coordinated, and prepared to prevent, detect, respond to, and recover from terrorist attack and other intentional acts, natural disasters, and other hazards (referred to as the “all hazards’ approach), which may also occur, including the needs and challenges posed by natural disasters, catastrophic events, adaptation and impacts of climate change, floods, earthquakes, pandemic illness, and any other events which impact the safety and availability of our water supply.

II. BACKGROUND:

Title IV of the Public Health Security and Bioterrorism Response Act of 2002 (Bioterrorism Act) amends the Safe Drinking Water Act (SDWA) and authorizes EPA to undertake several activities to increase the security and readiness of the Nation’s drinking water supplies against terrorist attacks. One key objective for EPA set out by the Act is to review methods and means by which terrorists could disrupt the supply of safe drinking water or take actions against water infrastructure.

EPA has been designated as the sector specific agency for the water sector by Presidential Policy Directive (PPD) -21. As part of EPA’s efforts as the sector specific agency, support is provided to the water sector for threat identification and national response efforts and exercises. The Agency is involved in a number of exercises each year, some of which are very large in scale.

The National Strategy for Homeland Security (White House, July 2002) has also designated EPA as the lead agency for the nation’s water infrastructure sector. EPA’s Homeland Security Strategy (2004) documents the Agency’s efforts to provide support to drinking water and wastewater utilities. It includes placing “an emphasis on preparedness and prevention, assisting those responsible for these critical infrastructures in assessing and reducing vulnerabilities and maximizing their response capabilities. EPA will develop technologies to improve the nation’s critical infrastructure and key responders’ abilities to detect and monitor environmental threats.” The tasks included in this work assignment support EPA’s efforts to enhance the preparedness, response, and recovery of the water sector critical infrastructure in the event of an incident of national significance or other natural or man-made incident.

III. QUALITY ASSURANCE:

The tasks in this work assignment do not require quality assurance (QA). Consistent with the Agency’s QA requirements, the contractor does not need to supplement the Contract Quality Assurance Project Plan (QAPP) or to prepare a Project Specific Quality Assurance project Plan (PQAPP).

IV. DETAILED TASK DESCRIPTION:

Along with Task 0, Work Plan, Progress Evaluations, and Monthly Progress Reports, there are six tasks described in this work assignment. In addition to the Work Assignment Contracting

Officer Representative (WACOR) named on the title page, a Task Manager (TM) will be assigned to each task and will be authorized to provide technical direction to the contractor for that task. A summary listing of the tasks, along with the associated TM, is shown in the following table.

Task #	Task Title	Task Manager
0	Work Plan, Progress Reports, and Project Tracking	Brian Pickard
1	Emergency Response Outreach Strategy	Jeff Fencil
2	State Emergency Response Exercises for the Water Sector	Kevin Tingley
3	Storm Ready Water Utilities	Kevin Tingley
4	Earthquake Resilience	David Goldbloom-Helzner
5	Drought Response and Recovery	Dawn Ison
6	Emergency Drinking Water Supply	Kevin Tingley

All direction under this WA will be provided as written technical direction from the WACOR, Alternate WACOR, or Task Manager (TM), as appropriate. If provided first as verbal technical direction to the contractor, it will be confirmed in writing within 5 calendar days, with a copy to the CL COR and the Contracting Officer (CO), and is subject to the limitations of the technical direction contract clause. Each initial deliverable shall be provided to the EPA WACOR in draft form for review and comment. The contractor shall incorporate WACOR/TM review comments into revisions of the drafts. All drafts and final reports shall be approved by the WACOR.

The contractor shall perform the following tasks:

Task 0: Work Plan (WP), Progress Evaluations, and Monthly Progress Reports

The contractor shall develop a WP that describes how each task will be carried out. The work plan shall include a schedule, staffing plan, level of effort (LOE), and cost estimate for each task, the contractor's key assumptions on which staffing plan and budget are based, and qualifications of proposed staff. In addition, the work plan shall include the requirement that all electronic and information technology (EIT) and all EIT deliverables be Section 508 compliant in accordance with the policies referenced at <http://www.epa.gov/accessibility/>. If a subcontractor(s) is proposed and subcontractors are outside the local metropolitan area, the contractor shall include information on plans to manage work and contract costs. In addition, the work plan shall specify that a Supplemental Project Specific Quality Assurance Project Plan (SQAPP) appending the Contract Level QAPP or a PQAPP is not required.

In each monthly progress report, the contractor shall, at the introduction to the discussion of this WA, discuss actual progress toward achieving the purpose of this work assignment, including problems encountered, issues that may need to be resolved, and anticipated timing for completing the goals of the WA. The contractor shall provide an overview of contract projects, striving to implement efficiencies in performance when complimentary requirements

are issued. The contractor shall assure that duplication of effort relative to other ongoing WA under this contract is not occurring.

Deliverables: Work plan and monthly progress and financial reports.

Task 1: Emergency Response Outreach Strategy

The contractor shall provide support for the development of a manageable, comprehensive outreach strategy for existing and emerging products developed by the Emergency Response Team. Specific tasks associated with this activity include:

1. Kick-off meeting with contractor staff and EPA TM to begin strategy development
2. Bi-weekly meetings with contractor and EPA TM to track outreach strategy and activity progress
3. Development of draft and, after EPA review, final versions of ER Team Outreach Strategy
4. Periodic collection of key metrics to track progress and overall outreach strategy effectiveness

The ER Team strategy shall be aligned with Division-level outreach activities to eliminate redundancy and maximize effectiveness. No travel is expected for this task.

Task 2: State Emergency Response Exercises for the Water Sector

The contractor shall provide support for the development of two emergency response tabletop exercises for the water sector in the contract period of performance, location to be determined. Stakeholders involved include EPA HQ (Office of Water, Office of Emergency Management), the Department of Health and Human Services (HHS), the Water Laboratory Alliance, one or more WARN networks, EPA Regional Water Teams, EPA On-Scene Coordinators, US Army Corps of Engineers (HQ and Districts), FEMA (HQ and Regions), State and Tribal primacy, permitting authority, and emergency management agencies, water and wastewater associations, Water ISAC and water and wastewater utilities. Issues to explore are to be determined but may include any of the following: disaster declaration; preliminary damage assessment; activation of local or state mutual aid and assistance such as WARN, EMAC and Regional capabilities; national level reporting; resource management, request for assistance, mission assignment, and subtasking procedures; sampling and laboratory analysis; Incident Command System structures; data management; and cross-sector interdependencies.

For each tabletop exercise, the contractor shall performing the following activities, as directed:

1. Work with EPA to identify Exercise Planning Team members
2. Develop background materials for review by the exercise design team
3. Provide guidance to the exercise design team on exercise options
4. Facilitate and take notes at exercise design team meetings (including two 2-3 hour meetings and 3-4 additional 1 hour meetings)
5. Develop exercise materials including information sheets, briefings, timelines, situation

- manuals, exercise plans, and job aids
- 6. Facilitate the exercises and conduct the Hot Washes
- 7. Develop After Action Reports for exercise participants

For estimating purposes, it is anticipated that the State Exercise support will require two separate trips to different states lasting up to three days, each involving up to two contractor staff. Contractor should assume one exercise will be with a state on the West coast, and the other will be in the Midwest.

Exercise Follow-up

The contractor shall also provide support, as needed, to the planning team. Support could include the following:

1. Convening Exercise Planning Team (EPT) for a "where are we now" meeting;
2. Working with EPT to determine which actions from their Improvement Planning Matrix remain to be addressed and develop plans for addressing them;
3. Leveraging the latest fact sheets and consolidating lists of resources that can help the states accomplish their action items. Resources cover topics such as power requirements, temporary water systems, and a checklist for utilities to use when coordinating with their local Emergency Management Agencies.
4. Leveraging materials from Fed FUNDS, helping state agencies develop or refine existing water sector-specific Damage Assessment forms.
5. Helping state agencies to develop or refine existing pre-identified resource requests/FEMA Action Request Forms.

Task 3: Storm Ready Water Utilities

The National Weather Service/NOAA StormReady program gives recognition to America's communities that have demonstrated the communication and safety skills needed to save lives and property--before, during and after the event.

The StormReady Supporter program was designed for organizations, businesses, facilities and local government entities that are actively engaged in weather safety and preparedness, but do not have the ability to meet all of the formal recognition guidelines of the StormReady program. Some StormReady Supporters are categorized by sector; for example, there is a 'StormReady Schools' category.

Unlike some other sectors, the water sector is relied upon by the community it serves to not only remain safe during a disaster, but also to continue to provide service, whether it be provision of potable tap water, or safe treatment and disposal of wastewater.

The contractor shall support the design and implementation of a 'StormReady Water Utilities' category under the StormReady Supporters umbrella. Specific steps involved in this process will be further defined through technical direction, but may include:

1. Identification of current drinking water/wastewater utilities that have achieved 'StormReady' status.
2. Convening and conducting a focus group meeting to discuss the development and implementation of a 'StormReady Water Utilities' category. This activity will involve working with the Baltimore/Washington D.C. region of the StormReady program.
3. Developing a "StormReady toolkit" for the Water Sector, which will help interested utilities to implement the policies and procedures that will make them more resilient and, by extension, earn the StormReady Water Utilities designation.

The contractor shall leverage existing WSD tools and resources, such as the Incident Action Checklists, the 'Response on the Go' mobile website, and the Hazard Mitigation Guide, to develop this program. One long distance trip may be required by the contractor, depending on the focus group meeting location and location of contractor SMEs. The contractor shall assume one long distance trip by one contractor lasting two days.

Task 4: Earthquake Resilience

The contractor shall provide support for the development of an Earthquake GeoPlatform on the EPA website. The tool shall allow water utility personnel to:

1. Review mitigation case studies
2. Identify earthquake risk
3. View the location of, and risk from, nearby faults

The tool shall be similar in look and feel to the GeoPlatform tool associated with EPA's Drought Guide, but rely on earthquake-related GIS layers, which may include past earthquake occurrences, future earthquake risk (for example, probability of two percent peak ground acceleration in 50 years), fault locations (using the existing USGS layer), and other geologic factors (including liquefaction risk). The contractor shall rely on leveraging existing GIS layers; no new GIS layers will be created.

The tool will also include information about successful earthquake resilience projects at between three and five water utilities across the United States. These utility summaries will be shown as "dots" on the map similar to the case studies in the Drought Case Study GeoPlatform, but will not be as in-depth (i.e. no videos will be developed). The summaries will be developed by EPA and include information drawn from previous EPA interviews. Individual summaries may also link to additional information about the projects, which will be provided by EPA.

No travel is expected for this task.

Task 5: Drought Response and Recovery

The contractor shall assist EPA in video documentation of two (2) drought case study utilities, which will be added to the Drought Case Study GeoPlatform website and will follow the same format. Work at these case study utilities will be limited to on-site video footage, interviews with utility staff and their drought partners, script development and narration, allowing for additional perspectives on drought resilience and response and more geographical diversity. The locations are to be determined, based on discussion between EPA HQ and EPA Regions. Once completed, these two case study videos will be added to the GeoPlatform (another “dot” on the map to keep it current).

In addition, the contractor shall work with EPA to add a link on the GeoPlatform overview tab that says “Tell your Drought Story”, and provide a form to fill out that will help the utility provide the kind of information EPA will need to write their story in a similar format that the others have. EPA will follow up with the system to obtain any additional information, and work with the contractor to add it to the case study map. It is expected that instead of sending users back to the Drought Guide to read more about the new case study, the link will send users to a new webpage created by the contractor. There will be no video for the “Tell your Drought Story” systems, but the contractor shall explore whether photos can be added to the webpage, in consultation with the EPA TM.

For estimating purposes, it is anticipated that this task will require up to two contractor staff to make two (2) trips to two (2) separate utility locations, each lasting three days.

Task 6: Emergency Drinking Water Supply

Provision of an emergency water supply involves collaboration and partnership between many stakeholders, including local and neighboring water utilities, the community, and various levels of government (including, potentially, the federal government).

The contractor shall plan and conduct an emergency drinking water supply pilot with a mid-sized utility. The pilot shall include the consideration of the type of events that could result in the loss of water; a timeline analysis, and step-wise process for procuring water; an assessment of equipment and other resource needs; and a communication and coordination plan. The contractor shall use concepts found in the document: *Planning for an Emergency Drinking Water Supply* (EPA 600/R-11/054, June 2011), to be supplied to the contractor by EPA, to design the pilot.

The pilot shall involve not just the drinking water utility itself, but also others who may be involved in implementing or supporting an emergency water supply plan. Potential participants may include the State National Guard, the Local Emergency Planning Committee (LEPC), Non-Governmental Organizations (NGOs), and state officials.

For estimating purposes, it is anticipated that this task will require up to two contractor staff to

make one trip of up to two days to conduct the on-site portion of the pilot project.

V. SCHEDULE/DELIVERABLES TABLE

Task	Deliverable	Quantity	Due Date
0	Work plan	1	Per contract requirements
0	Monthly progress and financial reports.	12	Per contract requirements
1	ER Team Outreach Strategy	1 Draft 1 Final	To be established by written technical direction
2	Meeting notes for State Exercise Design Team calls (includes improvement planning calls after exercise)	16	To be established by written technical direction
2	Situation Manual for State Exercise	2	To be established by written technical direction
2	Exercise Fact Sheet	2	To be established by written technical direction
2	Exercise After Action Report	2	To be established by written technical direction
3	Notes for StormReady Water Utilities Pilot planning calls	3	To be established by written technical direction
3	StormReady Water Utilities Pilot report	1	To be established by written technical direction
3	StormReady Water Utilities Pilot toolkit list	1	To be established by written technical direction
4	Earthquake GeoPlatform, including GIS layers and Utility Summaries	1	To be established by written technical direction
5	Draft and Final Drought Case Study Videos, Final version loaded to GeoPlatform	2	To be established by written technical direction
5	"Tell Your Drought Story" link added to the GeoPlatform	1	To be established by written technical direction

6	Meeting notes for Emergency Water Supply Pilot planning calls	2	To be established by written technical direction
6	Emergency Water Supply Pilot Report	1	To be established by written technical direction

VI. REPORTING REQUIREMENTS

Monthly Progress Reports (including a progress evaluation discussion)
Financial Reports

VII. GREEN MEETINGS AND CONFERENCES

The contractor shall follow the provision of EPA prescription 1523.703-1, *Acquisition of environmentally preferable meeting and conference services (May 2007)*, for the use of off-site commercial facilities for an EPA event, whether the event is a meeting, conference, training session, or other purpose. Environmental preferability is defined at FAR 2.101, and shall be used when soliciting quotes or offers for meeting/conference services on behalf of the Agency.

VIII. CONFERENCES AND WORKSHOPS

The tasks under this work assignment may require the acquisition of “off-site” facilities for conferences and meetings as defined in the IPN 12-05. AND the events associated with this work assignment are covered by EPA Order 1900.3 and do require EPA Form 5170.

The contractor shall immediately alert the WACOR to any anticipated event under the work assignment which may result in incurring an estimated \$20,000 or more cost, funded by EPA, specific to that event, meeting, training, etc. Those costs would include travel of both prime and consultant personnel, planning and facilitation costs, AV and rental of venue costs, etc. The EPA WACOR will then prepare for approval the internal paperwork for the event and will advise the contractor when appropriate signatures have been obtained. At that point, effort can proceed for the event. If the event is being sponsored by another EPA organization, the organization providing the planning is responsible for the approval.

Any event which meets the definition of a “conference,” with total net expenditures greater than \$20,000, is required to submit EPA Electronic Form 5170 and Form 5170-A (with cost estimates/actuals). In the case the workflow system is down and CORs require emergency approval, they can submit EPA Form 5170 (PDF) (2pp, 93K) (with cost estimates) to conference@epa.gov.

IX. SOFTWARE APPLICATION AND ACCESSIBILITY (SECTION 508 REHABILITATION ACT AND

AMENDMENTS)

Software Application files, if delivered to the Government, shall conform to the requirements relating to accessibility as detailed to the 1998 amendments to the Rehabilitation Act, particularly, but not limited to, § 1194.21 Software applications and operating systems and § 1194.22 Web-based intranet and internet information and applications. See: <http://www.section508.gov/>

Preferred text format:	MS Word, 8.0 or higher (Office 2007 or higher)
Preferred presentation format:	Power Point, Office 2007 or higher
Preferred graphics format:	Each graphic is an individual GIF file
Preferred portable format:	Adobe Acrobat, version 6.0

The WACOR shall identify which of delivered products will require 508 compliance.

QUALITY ASSURANCE SURVEILLANCE PLAN for WSD's Mission Support

Quality Assurance Surveillance Plan

The requirements contained in this WA are considered performance-based, focusing on the Agency's desired results and outcomes. The contractor shall be responsible for determining the most effective means by which these requirements will be fulfilled. In order to fulfill the requirements, the contractor shall design innovative processes and systems that can deliver the required services in a manner that will best meet the Agency's performance objectives. This performance-based requirement represents a challenge to the contractor to develop and apply innovative and efficient approaches for achieving results and meeting or exceeding the performance objectives, measures, and standards described below. The Contractor's performance will be reflected in the positive or negative evaluation offered by the Agency in the Contractor Performance Evaluation (CPE) which is evaluated annually (per the "Contractor Performance Evaluation" clause in the contract). The WACOR shall submit a complete annual review of the areas outlined in the Quality Assurance Surveillance Plan (QASP), included in the contract, which will then be utilized by the Project Officer in preparing the overall evaluations submitted annually in response to the Contractor Performance Evaluation requirements in the contract.

EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment						Work Assignment Number 1-38				
						<input type="checkbox"/> Other <input type="checkbox"/> Amendment Number:				
Contract Number EP-C-15-022			Contract Period 09/01/2015 To 06/30/2017 Base Option Period Number 1			Title of Work Assignment/SF Site Name GS of Carbon Dioxide: Recordke				
Contractor CADMUS GROUP, INC., THE					Specify Section and paragraph of Contract SOW 4.3					
Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval						Period of Performance From 07/01/2016 To 06/30/2017				
Comments: Performance on this WA shall not begin until July 1, 2016. Also, work other than just the work plan is authorized to begin on July 1, 2016.										
<input type="checkbox"/> Superfund Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
SFO <input type="checkbox"/> Note: To report additional accounting and appropriations date use EPA Form 1900-69A. (Max 2)										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:				LOE: 0				
09/01/2015 To 06/30/2017										
This Action:						1,170				
Total:						1,170				
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee		LOE:				
Cumulative Approved:				Cost/Fee		LOE:				
Work Assignment Manager Name Suzanne Kelly						Branch/Mail Code:				
<div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="display: flex; justify-content: space-between;">(Signature)(Date)</div>						Phone Number: 202-564-3887				
						FAX Number:				
Project Officer Name Nancy Parrotta						Branch/Mail Code:				
<div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="display: flex; justify-content: space-between;">(Signature)(Date)</div>						Phone Number: 202-564-5260				
						FAX Number:				
Other Agency Official Name						Branch/Mail Code:				
<div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="display: flex; justify-content: space-between;">(Signature)(Date)</div>						Phone Number:				
						FAX Number:				
Contracting Official Name Tammy Adams						Branch/Mail Code:				
<div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="display: flex; justify-content: space-between;">(Signature)(Date)</div>						Phone Number: 513-487-2030				
						FAX Number: 513-487-2545				

PERFORMANCE WORK STATEMENT
Cadmus EP-C-15-022
Work Assignment No. 1-38

I. ADMINISTRATIVE:

A. Title: Geologic Sequestration of Carbon Dioxide: Recordkeeping, Reporting and Data Management Support

B. Work Assignment (WA) Contracting Officer Representative (COR):

Suzanne Kelly
Office of Ground Water and Drinking
Water (OGWDW)
1200 Pennsylvania Avenue, NW (MC: 4606M)
Washington, DC 20460
202-564-3887
kelly.suzanne@epa.gov

Alternate WACOR:

Mary Rose Bayer
Office of Ground Water and Drinking
Water (OGWDW)
1200 Pennsylvania Avenue, NW (MC: 4606M)
Washington, DC 20460
202-564-1981
bayer.maryrose@epa.gov

C. Quality Assurance:

Tasks 1 through 3 in this WA require the use of primary and/or secondary data. Collection, use and analysis of data will be identical to the procedures described in the Project Specific Quality Assurance Project Plan (PQAPP) completed under Task 0 of WA 0-38 of this contract, consistent with the Agency's quality assurance (QA) requirements, appending the Contract level Quality Assurance Project Plan (QAPP). The PQAPP will cover all tasks in this WA. The project specific quality assurance requirements must be addressed in the monthly progress reports as specified under Task 0, below.

D. Background:

In December 2010, EPA promulgated "minimum requirements" for Class VI wells for geologic sequestration (GS) of carbon dioxide (CO₂): permitting, siting, area of review evaluation, corrective action, well construction, operation, inspection, monitoring, recordkeeping, reporting, post-injection site care, plugging and abandonment, site closure and financial responsibility. EPA is currently implementing the Class VI regulations nationally to ensure protection of Underground Sources of Drinking Water (USDWs). Given the unique nature and scale of GS injection operations and the volumes of information submitted to the Environmental Protection Agency (EPA) as a result of the final requirements, it is incumbent upon the EPA to responsibly receive, evaluate, manage and store the data and information.

Pursuant to §1445(a)(1) of the Safe Drinking Water Act (SDWA), Federal Requirements at 40 CFR Parts 144 and 146 under the Underground Injection Control (UIC) Program for Carbon Dioxide (CO₂) Geologic Sequestration (GS) Wells require permit applicants and owners or operators of Class VI wells to submit all required reports, submittals (e.g., the results of required periodic testing and monitoring associated with GS projects), and notifications, including initial permit applications, (required under subpart H) to EPA in an electronic format.

These requirements apply to permit applicants and owners or operators submitting information to EPA where EPA directly implements the Class VI Program and to states with Class VI primacy¹, pursuant to §147.1. All UIC Class VI Program Directors will have access to the data through the EPA electronic data tool. The Class VI rule does not specify data format and related data characteristics that would support permit application development and facilitate decision-making by owners or operators and UIC Program Directors, nor does the rule provide specifics on the EPA electronic data system. Necessarily, EPA is in the process of making, implementing and documenting decisions regarding data format, storage, evaluation, and management to ensure regulatory compliance, safe and effective permitting, and protection of USDWs.

The tasks under this WA support Class VI implementation and fulfillment of the Agency's goal of protecting USDWs and supporting the deployment of Carbon Capture and Storage (CCS) technologies.

II. OBJECTIVE:

Under this WA, the contractor shall: support the advancement of Class VI permitting and rule implementation through supporting guidance finalization, provide user support for Class VI data management modules in the GS Data Tool (GSDT), and the development of GSDT tutorials for owners and operators and permitting authorities.

III. TASK DETAILS:

The contractor shall perform the following tasks:

Task 0: Work Plan and Monthly Progress Reports

The contractor shall develop a work plan that describes how each task will be carried out. The work plan shall include a schedule, staffing plan, level of effort (LOE), and cost estimate for each task, the contractor's key assumptions on which staffing plan and budget are based, and qualifications of proposed staff. If a subcontractor(s) is proposed and subcontractors are outside the local metropolitan area, the contractor shall include information on plans to manage work and contract costs.

In addition, the contractor shall prepare a statement indicating that this WA is a continuation of WA 0-38.

The work plan shall explain that collection, use and analysis of data in this work assignment will be identical to the procedures described in the: Project-Specific Quality Assurance Project Plan (PQAPP) completed under Task(s) 0 of WA 0-38. This task also includes monthly progress and financial reports. The monthly progress report shall indicate, in a separate QA section, whether significant QA issues have been identified and how they are being resolved. Monthly financial reports must include a table with the invoice LOE and costs broken out by the tasks in this WA. The contractor shall immediately notify the CL-COR and WACOR if any changes to the tasks

¹ At the time of the development of this PWS, no states have Class VI Primacy.

involving the collection and analysis of the data occur and prepare a new: Project-Specific Quality Assurance Project Plan (PQAPP) supplementing the Contract Level Quality Assurance Project Plan (QAPP) accordingly. Work on these tasks cannot proceed until the contractor receives notification of the new: Project-Specific Quality Assurance Project Plan (PQAPP) approval from the PO via e-mail.

Task 1: Technical Guidance Finalization

EPA is in the process of finalizing a Reporting and Recordkeeping guidance document for owners or operators to support Class VI implementation and compliance with requirements at 40 CFR 144 and 146.81 through 146.95. The contractor shall support finalization of this document by performing technical guidance formatting. The contractor shall copy edit, format and conduct 508 compliance formatting (in compliance with Section 508 of the Rehabilitation Act of 1973) on the Final Reporting and Recordkeeping Guidance, comment table and public comments.

The contractor shall finalize the guidance and conduct 508 compliance formatting within two weeks of receipt of final documents from the EPA WACOR. For estimation purposes, the contractor should consider that the Final Guidance is approximately 100 pages and that the associated comment tables and public comments documents are each approximately 75 pages in length.

Task 2: GS Data Tool User Support

As a follow-on to work conducted under a previous WA, the contractor shall support EPA and permitting authority users in use of the GSDT. Support may include: coordinating with users to understand the challenges encountered; providing recommendations to the EPA WACOR for resolving challenges and increasing clarity of the GSDT materials; and participating in conference calls with the EPA WACOR and GSDT users to address challenges and “trouble shoot” the use of various GSDT modules. It is also anticipated that user support (e.g., updating user account information or providing presentations of GS Data Tool capabilities to users) may be required. The contractor should draw on previous experience with and knowledge of Class VI permitting to identify and support updates and maintenance, and provide user support.

Subtask 2.1: GS Data Tool Documentation Updates

During the performance period of this work assignment, it is anticipated that EPA may be required to make minor updates to the GSDT (i.e., any of the nine modules that comprise the GSDT) to, for example, correct wording, ensure consistency with the regulations and implementation experience, and respond to user challenges.

For estimation purposes, the Contractor shall anticipate participating in the following types of activities:

- Suggesting edits to existing documents on module design/structure to ensure user challenges are addressed and/or documentation is consistent with any module updates;

- Updating existing GSDT user support documents/fact sheets/one-pagers to reflect GSDT module updates;
- Providing alternate/edited text to the EPA WACOR for integration into the GSDT (e.g., clarifying language for help text boxes or instructions); and
- Coordinating with the EPA WACOR to identify strategies that will meet user needs.

For estimation purposes, the contractor shall anticipate providing support under this subtask to address twenty four issues/challenges encountered with the GSDT during the performance period of this work assignment. Within two weeks of identification of challenges/issues (delivered/communicated to the Contractor by the EPA WACOR), the Contractor shall propose a draft solution/submit updated text/suggest edits to the EPA WACOR. Draft updates shall be provided in WORD or PowerPoint (depending on the appropriate format for presenting information on an issue) to the EPA WACOR. Final updated documents shall be provided via email within two weeks of receipt of EPA WACOR comments.

Subtask 2.2: User Support

The contractor shall provide support to users of the GS Data Tool, including both EPA Headquarters and Regional users and permit applicant/owner or operator users. This support will include activities such as creating new user accounts, updating user account information, presenting GS Data Tool capabilities, coordinating with GS Data Tool development personnel to address users' technical problems, and other similar activities.

For estimation purposes, the contractor shall anticipate implementing twelve such actions over the course of the performance period for this WA. User support activities shall be delivered within one week of receipt of technical direction from the EPA WACOR.

Subtask 2.3: GS Data Tool Coordination and Use Conference Calls

In support of ongoing GSDT use, the contractor shall participate in conference calls with: EPA, GSDT development personnel, and GSDT users (i.e., EPA Regional staff; permit applicants; permittees). EPA will initiate these calls with the contractor. For estimation purposes, the contractor shall anticipate participating in eighteen one-hour calls which will allow an opportunity for dialogue, question and answer and coordination among team members. It is not anticipated that the outcome of these calls will change the scope of contractor's work, but will serve to clarify specific details and/or decisions regarding the GSDT.

Task 3: GSDT Tutorials

The contractor shall develop outlines for and productions of GSDT tutorials that support the efficient and effective use of the GSDT, Class VI permitting, and recordkeeping and reporting by both Class VI well owners or operators and UIC Program Directors/permitting authorities.

Subtask 3.1: Tutorial Design

The contractor shall prepare outlines for tutorials on the GSDT modules. Each outline will describe the use of a GSDT module for purposes of Class VI regulatory compliance (by owners or operators) or Class VI implementation activities (by UIC Program authorities). For estimation purposes, the tutorials should take the form of a digital recording of computer screen output (screencast) of modules with voice recording, videos of a person describing the steps of using the modules, use of powerpoint, where appropriate, or some combination of the above. For estimation purposes, the contractor shall anticipate developing conceptual designs for five GSDT modules. The contractor shall deliver a draft of the design to the EPA WACOR for review and comment in an electronic format (WORD or PDF) within one month of receipt of technical direction from the EPA WACOR. Final user documentation shall be provided via email within two weeks of receipt of EPA WACOR comments.

Subtask 3.2: Tutorial Production

The contractor shall produce tutorials for the GSDT modules. For estimation purposes, the contractor shall anticipate that tutorials will have both an audio and video component, as described in Subtask 3.1 and that individual tutorials will be no more than 45 minutes in length. The contractor shall deliver the tutorials to the EPA WACOR electronically (e.g., as video files) via email or on compact discs. The contractor shall deliver the produced tutorials within three weeks of receipt of technical direction from the EPA WACOR.

IV. SCHEDULE OF DELIVERABLES:

TASK No.	DELIVERABLE	DATE DUE TO EPA
Task 0: Work Plan and Monthly Progress Reports		
	Workplan and Supplemental Project Specific Quality Assurance Project Plan	According to contract
	Monthly progress and financial reports	Monthly
Task 1: Technical Guidance Finalization		
	Guidance formatting and finalization	Within two weeks of receipt of receipt of final documents from the EPA WACOR
Task 2: GS Data Tool Update, Maintenance, and User Support		
	Subtask 2.1: Draft User Documentation for module updates	Within one month of receipt of technical direction from the EPA WACOR
	Subtask 2.1: Final User Documentation for module updates	Within two weeks of receipt of comments from the EPA WACOR
	Subtask 2.2: Maintenance updates	Within two weeks of identification of items

		requiring updates and EPA WACOR technical direction
	Subtask 2.3: User support activities	Within one week of receipt of technical direction from the EPA WACOR
Task 3: GS Data Tool Tutorials		
	Subtask 3.1: Draft Tutorial Conceptual Design	Within one month of receipt of technical direction from the EPA WACOR
	Subtask 3.1: Final Tutorial Conceptual Design	Within two weeks of receipt of technical direction from the EPA WACOR
	Subtask 3.2: Tutorial Production	Within three weeks of receipt of technical direction from the EPA WACOR

V. MISCELLANEOUS

Software Application Files and Accessibility

Software Application files, if delivered to the Government, shall conform to the requirements relating to accessibility as detailed to the 1998 amendments to the Rehabilitation Act, particularly, but not limited to, § 1194.21 Software applications and operating systems and § 1194.22 Web-based intranet and internet information and applications. See: <http://www.section508.gov/>

Preferred text format:	MS Word, 8.0 or higher (Office 2003 or higher)
Preferred presentation format:	Power Point, Office 2003 or higher
Preferred graphics format:	Each graphic is an individual GIF file
Preferred portable format:	Adobe Acrobat, version 6.0

VI. TRAVEL

No travel is anticipated during the performance period of this WA. If travel becomes necessary to support the implementation of this WA, the WACOR will initiate an amendment to address the need.

VII. MEETINGS, CONFERENCES, TRAINING EVENTS, AWARD CEREMONIES AND RECEPTIONS

All appropriate clearances and approvals required by Agency policy in support of any and all conference related activities and expenses, including support of meetings, conferences, training

events, award ceremonies and receptions, including the form 5170 for all meetings costing more than \$20,000, shall be obtained by the EPA CLCOR as needed and provided to the Contracting Officer. Work under conference related activities and expenses shall not occur until this approval is obtained and provided by the EPA CLCOR.

VIII. CONTRACTOR IDENTIFICATION

Contractor personnel shall always identify themselves as contractor employees by name and organization and physically display that information through an identification badge. Contractor personnel are prohibited from acting as the Agency's official representative. The contractor shall refer any questions relating to the interpretation of EPA policy, guidance, or regulation to the CO, PO and/or WACOR.

IX. PRINTING

All copying and printing shall be accomplished within the limitations of the printing clause of the contract.

X. QUALITY ASSURANCE SURVEILLANCE PLAN (QASP)

The contract QASP is applicable to this WA.

EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment						Work Assignment Number 1-38				
						<input type="checkbox"/> Other <input checked="" type="checkbox"/> Amendment Number: 000001				
Contract Number EP-C-15-022			Contract Period 09/01/2015 To 06/30/2017 Base Option Period Number 1			Title of Work Assignment/SF Site Name GS of Carbon Dioxide: Recordke				
Contractor CADMUS GROUP, INC., THE					Specify Section and paragraph of Contract SOW 4.3					
Purpose: <input type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input checked="" type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval						Period of Performance From 07/01/2016 To 06/30/2017				
Comments: The purpose of this amendment 1 to Cadmus (EP-C-15-022) WA 1-38 is to change the primary WACOR from Sue Kelly to Matt Colombo.										
<input type="checkbox"/> Superfund Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
Note: To report additional accounting and appropriations date use EPA Form 1900-69A.										
SFO <input type="checkbox"/> (Max 2)										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:				LOE:				
09/01/2015 To 06/30/2017										
This Action:										
Total:										
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee			LOE:			
Cumulative Approved:				Cost/Fee			LOE:			
Work Assignment Manager Name Matt Colombo <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>							Branch/Mail Code: Phone Number: 202-564-6091 FAX Number:			
Project Officer Name Nancy Parrotta <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>							Branch/Mail Code: Phone Number: 202-564-5260 FAX Number:			
Other Agency Official Name Lisa Mitchell-Flinn <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>							Branch/Mail Code: Phone Number: 513-487-2852 FAX Number:			
Contracting Official Name Noelle Mills <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>							Branch/Mail Code: Phone Number: 513-487-2171 FAX Number:			

EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment						Work Assignment Number 1-39				
						<input type="checkbox"/> Other <input type="checkbox"/> Amendment Number:				
Contract Number EP-C-15-022			Contract Period 09/01/2015 To 06/30/2017 Base Option Period Number 1			Title of Work Assignment/SF Site Name Needs Survey				
Contractor CADMUS GROUP, INC., THE					Specify Section and paragraph of Contract SOW 3.1					
Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval						Period of Performance From 07/01/2016 To 06/30/2017				
Comments: Performance on this WA shall not begin until July 1, 2016. Also, work other than just the work plan is authorized to begin on July 1, 2016.										
<input type="checkbox"/> Superfund Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
SFO <input type="checkbox"/> Note: To report additional accounting and appropriations date use EPA Form 1900-69A. (Max 2)										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:		LOE:						
09/01/2015 To 06/30/2017				0						
This Action:				4,050						
Total:				4,050						
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee		LOE:				
Cumulative Approved:				Cost/Fee		LOE:				
Work Assignment Manager Name Robert Barles <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 202-564-3814 FAX Number:				
Project Officer Name Nancy Parrotta <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 202-564-5260 FAX Number:				
Other Agency Official Name <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: FAX Number:				
Contracting Official Name Tammy Adams <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 513-487-2030 FAX Number: 513-487-2545				

PERFORMANCE WORK STATEMENT
Work Assignment #1-39
EP-C-15-022

I. ADMINISTRATIVE

A. Title: Support for the 2015 Infrastructure Needs Survey

**B. Work Assignment Contract Officer
Representative (WACOR):**

Robert Barles
Office of Ground Water and Drinking
Water (OGWDW)
1200 Pennsylvania Ave, NW (MC:4606M)
Washington, DC 20460
202-564-3814
202-564-3757 (fax)

Alternate WACOR:

Nick Chamberlain
Office of Ground Water and Drinking
Water (OGWDW)
1200 Pennsylvania Ave, NW (MC: 4606M)
Washington, DC 20460
202-564-1871
202-564-3756 (fax)

C. Quality Assurance: Tasks 1 and 2 in this work assignment (WA) requires quality assurance (QA). Collection, use and analysis of data will be identical to the procedures described in the Supplemental Project Specific Quality Assurance Project Plan (SQAPP)] completed under Tasks 1 through 4 of WA 0-39 of this contract, consistent with the Agency's QA requirements, appending the Contract Quality Assurance Project Plan (QAPP)]. The project specific QA requirements must be addressed in the monthly progress reports as specified under Task 0, below.

D. Background: This WA is a continuation of the support provided under the previous WA 0-39 to conduct and complete the 2015 Drinking Water Infrastructure Needs Survey (DWINS or "Needs Survey").

A critical element of the National Drinking Water Program is the oversight of the Drinking Water State Revolving Fund (DWSRF) authorized by Congress to help capitalize state revolving fund programs to provide loans and grants to the Nation's drinking water systems to assist them in addressing their infrastructure investment needs. A key activity conducted by the Office of Ground Water and Drinking Water (OGWDW) in support of the DWSRF program is the conduct of a large survey to determine the infrastructure investment needs of the Nation's drinking water systems. The Needs Survey not only results in a report to the U.S. Congress on the needs for infrastructure investment in the drinking water industry but also provides the basis for the allotment of the annual DWSRF grants to the States based on their relative investment needs.

II. OBJECTIVE

Under this work assignment, the contractor shall continue to provide the support conducted to date under the previous WA 0-39 for Environmental Protection Agency's (EPA's) undertaking of the 2015 Needs Survey. The primary focus under this work assignment shall be supporting the analysis of the data collected by the field survey effort conducted under the previous WA 0-39 and developing the Report to Congress of the Survey's results. The support will include:

- providing technical support to states and water systems on resolving any Survey data issues that remain;
- conducting statistical analysis of the 2015 Needs Survey data base to support EPA's assessment of the aggregate results of the drinking water infrastructure investment needs at the state and national; and
- supporting EPA's effort to draft a Report to Congress (RtC), gaining both Agency, Office of Management and Budget (OMB) and White House approval, and providing follow-up support for EPA briefings to Congress, industry, states and other stakeholders of the Nation's drinking water

III. TASK DETAIL

The contractor shall perform the following tasks:

Task 0: Work Plan Submission.

The contractor shall develop a work plan that describes how each task will be carried out. The work plan shall include a schedule, staffing plan, level of effort (LOE), and cost estimate for each task, the contractor's key assumptions on which staffing plan and budget are based, and qualifications of proposed staff. If a subcontractor(s) is proposed and subcontractors are outside the local metropolitan area, the contractor shall include information on plans to manage work and contract costs.

In addition, the contractor shall prepare a statement indicating that this WA is a continuation of WA 0-39. The work plan shall explain that collection, use and analysis of data in this work assignment will be identical to the procedures described in the SQAPP completed under Tasks 1 through 4 of WA 0-39.

This task also includes monthly progress and financial reports. The monthly progress report shall indicate, in a separate QA section, whether significant QA issues have been identified and how they are being resolved. Monthly financial reports must include a table with the invoice LOE and costs broken out by the tasks in this WA. The contractor shall immediately notify the Contract Level Contracting Officer Representative (CL-COR) and Work Assignment Contracting Officer Representative (WACOR) if any changes to the tasks involving the collection and analysis of the data occur and prepare a new SQAPP supplementing the Contract QAPP accordingly. Work on these tasks cannot proceed until the contractor receives notification of the new SQAPP (if developed) approval from the CL-COR via e-mail.

Deliverables: Work plan and monthly progress reports with project and financial status and projections and a summary of QA activities and issues in conducting this WA.

Task 1: Support to EPA and the States for Resolution of Any Remaining Project Acceptance Issues- (PWS SECTION: 3.1.1)

While it is expected that all initial survey submissions from states and systems as well as any re-submitted modifications will have been completed under the previous WA 0-39, the contractor shall plan and budget for a minimum of further interaction with states to resolve any remaining project acceptance issues including needed documentation. The contractor shall adhere to the Needs Survey's policies and benchmarks for project acceptance

as conducted under the previous WA 0-39.

For budget planning purposes, the contractor shall assume three (3) states will need further support to resolve project acceptance issues for two (2) water system's survey submissions from each state. For budget estimating purposes, the contractor shall assume, on average, three communications with each state, each session lasting one (1) hour each. The contractor shall provide at least a mid-level analyst (P3) for these consultations with a state or Region.

While this support may result in additional data needing to be inputted into the Needs Survey website/data base, it is expected that no further development of the data base structure will be necessary outside of EPA's own internal IT and security policies and efforts. However, the contractor shall maintain a minimum level of IT expertise of the data base in order to provide any program/data user input requested by EPA's IT offices involved in the hosting and maintenance of the data base particularly the Office of Water's Information Management Officers (IMOs) and the Office of Environmental Information (OEI).

Task 2: Provide Support for Data Analysis and Development of a Report to Congress. The contractor shall download the collated infrastructure needs data and undertake analysis to derive statistically-valid conclusions regarding the total 20-year projection of drinking water infrastructure investment needs at the national level and on a state-by-state comparison basis. The contractor shall set up a meeting to present all the findings of the data analysis to the WACOR. With approval from the WACOR, the contractor shall draft an initial written report with summary data tables and graphs along with narrative explaining the results for submission to Congress ("Report to Congress" or RtC). The contractor shall provide support for changes to draft RtC resulting from internal Agency reviews as well as OMB and/or White House reviews.

IV. SCHEDULE OF DELIVERABLES

TASK No.	DELIVERABLE	DATE DUE TO EPA On or about CALENDAR DATE
Task 0: Work Plan Submission		
	Work plan, budget, and QA supplemental	According to Contract
	Progress and financial reports	Monthly
	Develop Action Plan based on WACOR instructions of final dates	Within 10 days of Work Plan approval
Task 1: Support for Resolving Project Acceptance Issues		
	Identify Remaining Project Acceptance Issue to WACOR and timetable/plan for resolution	July 15, 2016
	Report on Any Unresolvable Issues with States to WACOR	July 29, 2016
Task 2: Support for Data Analysis and Development of a Report to Congress		

	Download complete data base for statistical model analysis and report to WACOR any issues	Per WACOR-Approved Action Plan (est. date July 2016)
	Hold briefing of WACOR of aggregated results of 2015 Needs Survey	Per WACOR-Approved Action Plan (est. date August 2016)
	Produce draft Interim Executive Report of all findings and issues and provide to WACOR	Per WACOR-Approved Action Plan (est. date September 2016)

V. MISCELLANEOUS

Software Application Files and Accessibility

Software Application files, if delivered to the Government, shall conform to the requirements relating to accessibility as detailed to the 1998 amendments to the Rehabilitation Act, particularly, but not limited to, § 1194.21 Software applications and operating systems and § 1194.22 Web-based intranet and internet information and applications. See: <http://www.section508.gov/>

Preferred text format: MS Word, 8.0 or higher (Office 2003 or higher)
Preferred presentation format: Power Point, Office 2003 or higher
Preferred graphics format: Each graphic is an individual GIF file
Preferred portable format: Adobe Acrobat, version 6.0

EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment						Work Assignment Number 1-39				
						<input type="checkbox"/> Other <input checked="" type="checkbox"/> Amendment Number: 000001				
Contract Number EP-C-15-022			Contract Period 09/01/2015 To 06/30/2018			Title of Work Assignment/SF Site Name				
			Base Option Period Number 1			Needs Survey				
Contractor CADMUS GROUP, INC., THE					Specify Section and paragraph of Contract SOW 3.1, 6.1					
Purpose: <input type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input checked="" type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval					Period of Performance From 07/01/2016 To 06/30/2017					
Comments: The purpose of this amendment 1 to Cadmus (EP-C-15-022) WA 1-39 is to provide support for both an extensive rewriting of the draft Report to Congress and for additional analysis to support the findings of the Needs Survey.										
<input type="checkbox"/> Superfund					Accounting and Appropriations Data					<input checked="" type="checkbox"/> Non-Superfund
Note: To report additional accounting and appropriations data use EPA Form 1900-69A.										
SFO <input type="checkbox"/> (Max 2)										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:				LOE: 4,050				
09/01/2015 To 06/30/2018										
This Action:						165				
Total:						4,215				
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee		LOE:				
Cumulative Approved:				Cost/Fee		LOE:				
Work Assignment Manager Name Robert Barles						Branch/Mail Code:				
_____ (Signature) (Date)						Phone Number: 202-564-3814				
						FAX Number:				
Project Officer Name Nancy Parrotta						Branch/Mail Code:				
_____ (Signature) (Date)						Phone Number: 202-564-5260				
						FAX Number:				
Other Agency Official Name						Branch/Mail Code:				
_____ (Signature) (Date)						Phone Number:				
						FAX Number:				
Contracting Official Name Noelle Mills						Branch/Mail Code:				
_____ (Signature) (Date)						Phone Number: 513-487-2171				
						FAX Number:				

PERFORMANCE WORK STATEMENT
Work Assignment #1-39 Amendment #1
EP-C-15-022
Performance Period 7/1/16-6/30/17

I. ADMINISTRATIVE

A. Title: Support for the 2015 Infrastructure Needs Survey
(Conducted under PWS Sections 3.1, 6.1 Estimated LOE - 165 hours)

**B. Work Assignment Contract
Officer's Representative (WACOR) :**

Robert Barles
Office of Ground Water and Drinking
Water (OGWDW)
1200 Pennsylvania Ave, NW (MC:4606M)
Washington, DC 20460
202-564-3814
202-564-3757 (fax)

Alternate WACOR:

Nick Chamberlain
Office of Ground Water and Drinking
Water (OGWDW)
1200 Pennsylvania Ave, NW (MC: 4606M)
Washington, DC 20460
202-564-1871
202-564-3756 (fax)

C. Quality Assurance: The quality assurance requirements described and pursued under the existing Task 0 will apply to this amended effort.

D. Background: This WA provides contractual support to conduct and complete the 2015 Drinking Water Infrastructure Needs Survey (DWINS or "Needs Survey". This amendment provides additional support to EPA to address an unexpected delay and expansion of the review of the Report to Congress (RtC) by the Office of Management and Budget.

II. OBJECTIVE

Under this work assignment amendment, the contractor shall provide support for both an extensive rewriting of the draft RtC and for additional analysis to support the findings of the Needs Survey.

III. TASK DETAIL

The contractor shall perform the following additional tasks:

Task 3: Re-write the draft Report to Congress and for additional analysis to support the findings of the 2015 Needs Survey based on OMB's review

The contractor shall support EPA in redrafting the RtC to respond to OMB comments. A draft, in Microsoft Word, shall be developed to track changes made by EPA in response to OMB comments including the re-design and different placement of graphics in the Report along with additional data added at the request of OMB. With OMB approval, a final Word draft shall be prepared for final approval by the WACOR. Once approved, the contractor shall provide a final published version of the Report for public release and an web-based version including 508 compliant requirements.

The contractor shall also provide additional data analysis to response to OMB comments. EPA has previously provided OMB comments and directions for needed

additional analysis. Under this amendment, the contractor shall put the additional data analysis in final form for EPA's use in discussion with OMB.

Deliverables: Draft and Final Microsoft Word version of Report to Congress. A final published version of the Report to Congress for public release and a web-based 508-compliant version.

IV. SCHEDULE OF DELIVERABLES

TASK No.	DELIVERABLE	DATE DUE TO EPA
Task 3: Re-Write of RtC and OMB-requested analysis		
	Excel Spreadsheets and Tables that address OMB data requests	June 1, 2017
	Draft Word Version of revised RtC	June 1, 2017
	Final Word Version of RtC	June 15, 2017
	Publish Version of RtC	June 17, 2017
	Web-based, 508-Compliant Version of RtC	June 17, 2017

V. MISCELLANEOUS

Software Application Files and Accessibility

Software Application files, if delivered to the Government, shall conform to the requirements relating to accessibility as detailed to the 1998 amendments to the Rehabilitation Act, particularly, but not limited to, § 1194.21 Software applications and operating systems and § 1194.22 Web-based intranet and internet information and applications. See: <http://www.section508.gov/>

Preferred text format: MS Word, 8.0 or higher (Office 2003 or higher)
Preferred presentation format: Power Point, Office 2003 or higher
Preferred graphics format: Each graphic is an individual GIF file
Preferred portable format: Adobe Acrobat, version 6.0

VI. MEETINGS, CONFERENCES, TRAINING EVENTS, AWARD CEREMONIES AND RECEPTIONS

None required

VII. CONTRACTOR IDENTIFICATION

Contractor personnel shall always identify themselves as contractor employees by name and organization and physically display that information through an identification badge. Contractor personnel are prohibited from acting as the Agency's official representative. The contractor shall refer any questions relating to the interpretation of EPA policy, guidance, or regulation to the CO, CL-COR and/or WACOR.

VIII. PRINTING

All copying and printing shall be accomplished within the limitations of the printing clause of the contract.

IX. Technical Direction

The Contract level COR or an authorized individual is permitted to provide technical direction. Technical direction must be within the statement of work of the contract and includes: (1) Direction to the contractor which assists the contractor in accomplishing the Statement of Work, (2) Comments on and approval of reports or other deliverables. Technical direction will be issued in writing or confirmed in writing within five (5) calendar days after verbal issuance. One copy of the technical direction memorandum will be forwarded to the Contracting Officer and the Contract Level Contracting Officer Representative.

X. Quality Assurance Surveillance Plan

All task(s) identified in the performance work statement above are subject to review and approval by the EPA WACOR based on the general guidelines of the contract quality assurance surveillance plan regarding: Programmatic, cost control, timeliness/deliverables, and document development standards.